THE CULTIVATOR.

THIRD — To Improve the Soil and the Mind. — SERIES.

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The New-Year.

In presenting the first number of our new volume, we solicit for it the kind attention of its old friends, as well as of all those who take any interest in the progress of agricultural improvement. There are several reasons why THE CULTIVATOR should have an extensive circulation, not only in this State, but also in every State in the Union. The first, because it is pre-eminently an American work, its contents consisting in a great degree, of the practice, experience and suggestions of the best farmers of our own country. Another is, its cheapness, which places it in the reach of every one in the least disposed to read, and enables every one who now patronizes his local journals, to add this to his list at an expense so trifling as to be of no account when compared with its value. Indeed, could its claims be fairly presented to the farmers, we have no doubt that its subscription might easily be raised to Fifty Thousand. We mean to make it worthy of such a circulation, and we respectfully solicit from its readers and friends, the efforts in its behalf necessary to accomplish this very desirable object, not less for them than for ourselves.

All persons who receive this paper, are authorized and requested to aid in the work, and we will, as an inducement to exertion in every neighborhood, *as soon as Ten Subscribers are procured, supply them all with* THE CULTIVATOR *and* REGISTER *for* $5; having little doubt that some additional exertion this, or even another year, will secure at least the full club number in the end. We make this offer with the less hesitation, as we hope that by its means we can attract the attention of some to our Club terms, who would otherwise rest satisfied with sending their own single subscriptions, and with confidence that all that is needed to secure the widest circulation for the two periodicals, is a general acquaintance with their intrinsic and permanent value on the one hand, and the cheapness of their price on the other.

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FOR A SINGLE COPY,..... FIFTY CENTS.

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☞ Clubs need not necessarily take their papers from the same Post-Office—they will be sent to as many different offices as may be required.

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One copy, one year,		$2.00
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If our correspondents will read and remember, when writing to us, the following notices, they will save us much trouble, and greatly increase the certainty of a prompt compliance with their orders:

Dating Letters.

☞ It is of the greatest importance, that every person writing us should give his full Post Office address—naming *Post Office*, *County* and *State*—for instance, as follows:

Shutsville, Jefferson Co., Ky., Oct. 1, 1855.

If all our correspondents would thus commence their letters, and be careful to write their names plainly, it would save us much labor and vexation, and secure a prompt and correct fulfilment of their requests.

☞ Great care should be taken to write the name and address of each subscriber distinctly, thus:

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Subscribers in British Provinces.

We have to pay the United States postage on all papers to the British Provinces; and this we cheerfully do, to all subscribers who pay the single copy price of $2.00 for the Country Gentleman, and Fifty Cents for The Cultivator; but on all clubs, the U. S. postage must be added. Hence our club terms to them for the latter will be—

20 copies and the REGISTER to each,..... 11.00

And for the COUNTRY GENTLEMAN,

3 copies..... $5.75

10 copies,..... 17.50

The Illustrated Annual Register.

Two numbers of this work are now issued—for 1855 and 1856—and it will hereafter be published regularly, toward the close of each year; and every person who takes any interest in rural affairs should be careful to secure the work from its commencement. In a few years it will form a more valuable RURAL LIBRARY than can be procured in any other shape for ten times the money.

PRICE—in paper covers—25 cents—Five copies, $1—Twelve copies, $2. Bound in muslin, 50 cents. *Sent by mail, post-paid.*

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On the Cultivator, per year,.....	6 cents.
Country Gentleman, per year,.....	26 cents.
except in Albany county, where it is free.	
Illustrated Annual Register, if *prepaid*....	2 cents.
Payable *where delivered*.....	4 cents.

Agents can remit, at *two* cents per copy for the Register and have the postage paid here, or let the subscribers pay four cents on delivery, as they prefer. The postage on the papers must be paid quarterly in advance, *at the post offices where delivered*.

The Cultivation of Potatoes.

A light soil abounding in rich organic matter is found by experience to produce the largest crops of potatoes; but since the visitation of that mysterious scourge the "Potato Disease," it has been found advantageous to cultivate them on light, *poor* soil, for while the rich soil in many instances continues to grow the largest crop, the tubers are so diseased and unpalatable that a small sound crop is more profitable. The poor sandy soils around this city are now planted with potatoes to an extent that almost exceeds belief. We were in the town of Watervliet a short time since, and called upon several farmers in the town in order to ascertain a few facts in regard to the cultivation and yield of their staple crop. We went along three roads, enclosing a triangular piece of land containing somewhat more than a square mile, and called on thirty farmers whose houses were near the road. These thirty farmers raised the past year *seventy-six thousand, six hundred and twenty-two bushels of potatoes.* Several of the farms were more than half planted every year with potatoes, and on two or three farms three fourths of the land was thus occupied. On one farm, that of L. & A. Gove, 8750 bushels were raised this year. D. D. T. More, on 55 acres, raised 6250 bushels. The Messrs. Osborn on 88 acres, 7710 bushels. J. Ferris, 7500 bushels, and many others raise annually three, four and five thousand bushels of potatoes.

The yield per acre is not large; the average of these farms where we could ascertain the number of acres planted, was 102½ bushels per acre, the highest *farm* being 133 bushels per acre—in this instance three fourths of the farm, (a small one,) was in potatoes.

Peruvian guano is used to a considerable extent, and is found a cheap and effective fertilizer. In one instance we found a field where potatoes had been grown four years in succession manured with guano, and the crop this season was the best it had ever produced, averaging 150 bushels per acre. It is somewhat remarkable that this light, sandy soil, which we should suppose poor in all the mineral elements of plants but especially in potash, should thus annually yield a fair crop of potatoes, which of all our agricultural plants removes from the soil the most potash; and that Peruvian guano should prove such a powerful fertilizer, while of all manures it is the poorest in potash—containing not more than 2 per cent.

A good clover sod, plowed under immediately before planting, is considered the best preparation for potatoes, though since the introduction of guano potatoes are frequently planted after potatoes, corn, rye, &c. Plaster, about 2 bushels per acre, either sown broadcast or scattered on the hills just as the plants are breaking the soil, is an effective fertilizer and is used to a considerable extent. Plaster on this sandy soil, has a highly beneficial effect on clover.

Potatoes of medium size, are usually planted whole, in hills about 2½ feet apart, 10 bushels of seed per acre. Plant as early in the spring as the soil will admit, and many farmers continue planting as late as the first week in June. We saw some planted the tenth of June, but the crop was light. The Mercer, although a poor producer, is the favorite variety, now commanding the highest price. The *Long Johns* will yield one third more per acre, but they bring a less price and when the market is dull, it is difficult to sell them at all.

A few farmers still draw manure from the city, three miles, but since the introduction of guano the practice is becoming less common every year.

We met with a few good old farmers who had never tried guano, and had "no faith in it;" but all who had used it, without exception, thought it a "powerful" manure; yet we were somewhat surprised to find that not one could give even a good Yankee guess as to the number of bushels of potatoes over and above the unmanured soil 100 lbs. of guano would produce. Mr. D. D. T. More used 200 lbs. of Peruvian guano on potatoes side by side with "Northern Marl,"—an article, we believe, which is said to contain a large quantity of phosphate of lime;—the marl did *no good*, while the guano "increased the crop fully one third." Mr. More's crop averaged 113 bushels per acre. so according to this, 200 lbs. of guano increased the crop 28 bushels per acre. The *safest* way to apply guano is to sow it broadcast and plow and harrow it in immediately; but it will produce a greater effect if placed in the hill with the potato, but great care is necessary to incorporate it well with the soil. for it will assuredly kill the seed if it comes in contact with it.

There is nothing remarkable about the method of cultivating potatoes in this district; the reason why farmers have engaged so extensively in their cultivation is to be ascribed to the almost total exemption from the rot, which is so injurious in richer and heavier soils.

Cure for Foul Feet.

I observe in the country Gentleman of Oct. 11th, 235th page, an inquiry for cure of "Disease in the Feet of Cattle." The disease described is here called *Foul Feet*, and my foreman Jowitt, assures me the following treatmant effects a certain cure:

1st. Make frequent application of warm bran poultices for 2 or 3 days.

2d. Remove the poultice and wash with warm stale urine.

3d. Mix ¼ lb. of finely pulverized copperas with tar, and saturate tow or flax with the mixture,—enough to cover the diseased parts—and bind on with a cloth. Change the application daily until the foot is well. Two or three applications are usually sufficient. S. A. Johnson. *Manchester, England.*

A Portable Grist Mill.—The editor of the *Germantown Telegraph*, recently, while at Boston, saw Felton's patent portable grist mill in operation. He says: "We examined it with some care, and before we left it, we were very much impressed with its many good qualities, and perfect adaptedness to the use of farmers. It is self-sharpening and warranted to grind 4000 bushels of the hardest flint corn without renewing or dressing the grinding surface. With a single horse endless chain power, which now nearly every farmer possesses, five bushels of feed can be ground per hour, and double the quantity with two horses. It also has an addition, by which corn in the cob can be ground with great facility and in the best manner. The price of these mills is $60, ready for use, $70 with the Corn Cob Crusher attached. Any letters addressed to Wilkinson & Fitch, Pittsfield, Mass., on the subject, will receive due attention."

A Few Words on Underdraining.

There is no subject so eminently worthy the earnest attention of American farmers, as that of underdraining. It is erroneous to suppose that *all* land needs underdraining, but we may assume that the greater portion of all the arable, and much of the grass land of this continent, would be much improved by the removal of all surplus water by means of underground conduits. The only question is, will it pay. Where land is sold for $5 per acre, it is hardly to be supposed that it will pay to expend six times the fee simple of the farm in underdraining it. But where land is worth from $50 to $150 per acre in its underdrained state, we hesitate not to say that nothing will pay better than an expenditure of $20 or $30 per acre in a judicious process of underdraining. For some years at least, underdraining alone will increase the products of most farms from one-third to one-half, and there are many instances on record where it has *doubled* the crops. Wm. P. Ottley, of Phelps, Ontario Co., N. Y., to whom the N. Y. State Ag. Society awarded the first premium in 1854, for the best managed farm, and the second premium for experiments in draining, says: "It is safe reckoning that draining will pay for itself, with interest of cost, in two crops." This is also the opinion of John Johnston and Robert S. Swan, of Geneva, who have laid about *sixty-three* miles of tile underdrains on their farms.

Mr. Ottley laid a portion of his drains with stone at a cost of 40 cents per rod, and the other portion with tiles at a total cost of 31½ cents per rod. The drains were dug 2½ feet deep, and were cut in such parts of the field only as appeared to need underdraining. We should advocate a more thorough system, but "half a loaf is better than no bread," and, indeed, the result of this partial drainage was in the highest degree satisfactory, increasing the value of the land "not less than $5 per acre annually, together with ease and comfort of tillage."

This "ease and comfort of tillage" is no slight advantage. Underdrained land can be plowed earlier in the spring and later in the fall, than that which is undrained; and after heavy rains, while the undrained land is too wet for man or beast to work on, the drained soil is sufficiently dry to allow the usual farm labors to proceed without interruption.

Underdraining lies at the foundation of all agricultural and horticultural improvement, and it is as unwise to expend money in attempting to increase the fertility of a farm that needs underdraining by deep plowing, and good cultivation alone, or by the application of natural or artificial manures, &c., as it would be to build an expensive house on quicksand. In improving a farm, as in everything else, you must "begin at the beginning." This is the only true economy. Provide means for speedily removing all excess of water from the land, and you are then, and not till then, in a condition to carry out any other improvement that may be desired.

How often in riding along the New-York Central Railroad from this city to Buffalo, have we been saddened at the sight of so many thousands of acres of valuable land surcharged with the elements of fertility, but which, for lack of underdraining, yield crops that barely remunerate the hard-working cultivator for his labors! And yet this road passes through the best districts of the Empire State, and the farmers as a whole, will compare favorably for intelligence and enterprise, with those of any State or country in the world. We have seen this year in our trips about the country, thousands of acres of corn that would not yield ten bushels of sound ears per acre, and hundreds of acres in the aggregate, where the crop was a total failure, and this not from "exhaustion of the soil," or poor cultivation, but simply because the land needed draining. As long as the country is new, and the roots of trees afford a kind of natural drainage, land suffers little from drouths and wet seasons—it is partially underdrained. But as the roots decay out, the natural conduits are filled up, and we must go to work and provide artificial ones.

"All this is true," a farmer at our side replies, "but I cannot afford to underdrain. It is a very expensive operation, and I have not the money to spare. I know quite well that my crops this year were not half what they would have been, had the land been underdrained, but then the idea of spending $20 or $30 per acre in draining, is in my case simply impossible; I have not the means to do it with."

But would it not be better to sell a portion of your farm, and expend the money in underdraining the other portion? We know that under certain circumstances it is desirable to hold land, even if nothing is received from it, the "rise in real estate" making up for the loss; but this aside, it is far better to have 100 acres of well-drained land, than 150 that, from lack of draining, produces only half a crop. We speak advisedly when we say that the former can be carried on with half the labor of the latter, while the crops are one-third larger.

"True, but if I should sell off one-quarter of my farm, and expend the money in improving the other three-fourths, I should not be able to sell the improved 100 acres for enough more to pay me back the money buried in underdrains. People wont pay for improvements, especially for those which are out of sight."

Money judiciously expended in underdraining is not buried out of sight. Cut an underdrain through that field, and the wheat next year for a short distance on each side of it, shall be double what it is on the other portions of the field. No, sir, money buried in underdrains is not out of sight. Every dollar next harvest shall come again rejoicing, bringing his sheaves with him. But, then, supposing the farm will not sell for enough more to pay the cost of draining, what do you want to sell for? This desire to sell does more to retard improvements in American Agriculture, than everything else put together. The lack of capital is a great drawback, but it is nothing compared with this restlessness which seems indigenous to a new country. This love of change will doubtless work its own cure, and in the meantime we will guarantee that in ninety nine cases out of a hundred, money judiciously expended in underdraining a good farm in the older settled States, will pay a higher interest than that invested in any other way. In addition to this you have the pleasure of seeing your farm gradually improve under your hands, and the consciousness that you are adding to the wealth and stability of the coun-

try. Every one who has had experience in underdraining, will bear us witness that it is of all farm labors the most fascinating, and if these few trite remarks shall induce any one to lay only a few rods of underdrains on his farm, our object will be attained, for we are quite satisfied that he will not stop, so long as there is a wet undrained acre on the farm.

Character of New American Grapes.

"Myself and many others here are desirous of obtaining your opinion of the following three grapes, viz. Charter Oak, Concord, and Diana.

"1. How hardy are they, and will they withstand our northern climate without protection in winter? 2. What are their several times of ripening? 3. What is their quality as table grapes, as compared with the Isabella? 4. What are their size and productiveness, and which is the most productive? 5. Which on the whole is preferable to cultivate as far north as Brandon? Where can they be obtained and at what price?" R. V. MARSH. *Brandon, Vt.*

All the grapes are hardy, and will withstand ordinary winters at Brandon without protection. The Charter Oak, although large, is nearly worthless in quality, and we shall therefore confine our remarks to the two others. The Diana ripens ten days or two weeks before the Isabella, and with good cultivation will doubtless succeed well there. The Concord, so far as we can learn, is quite as early, and even earlier. The Diana is small, the bunches small, the vine productive, but not so much so as the Isabella. It has a sweet, very agreeable, and delicate flavor, and is nearly free from the pulp which distinguishes most American varieties. The Concord is a very large and exceedingly showy grape, in large bunches, is quite hardy, and is said to be exceedingly productive. Its quality is good, but inferior to the Isabella. It will probably prove a valuable sort for Vermont, especially on account of its early ripening; and its fine appearance and productiveness commend it as a market sort, or for home use to those who are not very fastidious as to flavor. Those who are more particular, will select the Diana; but most cultivators will on the whole prefer the Concord. Both may be obtained of Hovey & Co., of Boston, and of all other principal nurserymen at the north. The price is about two or three dollars for the Concord, and one dollar for the Diana.

Supporting Dwarf Pear Trees.

"I have a young bearing orchard of dwarf pears—the trees have given me much trouble this year by bending over under the load of fruit with the force of the wind, apparently for want of strong roots—what is the proper remedy?" W.

This is a difficulty not unfrequently met with in the cultivation of the dwarf pear. They will often stand erect in ordinary seasons, but unusual rains soften the the ground, and strong winds sometimes give them an inclination towards the ground. The stem by swaying to and fro, forms a large hole in the soil which increases the difficulty Various remedies have been proposed. Some have dug them up and set them deeper, but we cannot recommend this course,—as deep planting except in very deep and highly manured soils, is apt to retard growth; and besides it does not always prevent the hole occasioned by the swaying of the stem. If the tree is small, a thick piece of stout turf, placed firmly round the stem will answer the purpose. In other cases, staking may be resorted to. But in trees of much size, we should prefer placing a leather strap or a straw band around the stem about two thirds of the way to the top, securing a wire to this, and the other end of the wire to a small peg driven obliquely into the ground with the top inclining *from* the tree. This wire forms a strong brace. If the wind prevails in one direction only, a single wire *towards* it may be enough; in other cases two or three wires may be useful.

Time for Transplanting.

When is the most proper time to set out fruit trees, blackberries, strawberries, and ornamental trees? A. F. R. *New Hartford, One. Co., N. Y.*

All *hardy* fruit trees may be advantageously set out in autumn from any time from the cessation of growth, till the ground freezes. Those partly tender, such as the peach, do best in most cases, if transplanted in spring. Blackberries may be set out at either period. Strawberries succeed best by spring transplanting, and if well and early done, will often bear a moderate crop the same year. If not done in spring, the next best season is just at the close of bearing, while they are in a partially dormant state from exhaustion, and before the commencement of the second growth.

The same rule required for fruit trees, is also applicable to ornamental, namely, that such as are *hardy* may be removed at either season, and tender ones only in spring. Where there is any question as to their hardiness, it would be safest to defer the operation till the latter period, as all trees, by the mutilation which they must in some degree receive, are rendered more susceptible to the cold, and liable to become injured unless of the hardiest nature. With these exceptions autumn transplanting has a decided advantage, the soil becoming well settled among the roots of the trees and they have nothing to do in spring but to start and grow, without the check which they might receive if torn from the ground at this period.

It should not be forgotten, however, that successful growth depends incomparably more on the *after culture* which the trees receive, than on the time of transplanting, important indeed as this may be.

Cure for Warts on Animals.

MESSRS. EDITORS—In answer to inquiry of T. N. Smith of Quebec, for a cure for warts on horses. Corrosive sublimate and red precipitate, powdered and mixed, equal parts, will cure the worst wart in the world on horses or cattle. If the wart is large and loose, tie a fine strong cord around it close to the skin. In a short time the wart will come off. Then apply the powder until the wart is eaten down below the skin; then wash off, and rub on a little sweet oil, and it will soon heal over. If the wart is dry, scratch with a pin or point of a knife until it bleeds; then rub on the powder. It will make a dry scab; pick off the scab and put on the powder again, until it is all eaten off. I have used this in hundreds of cases, and never failed of a cure. ASA BARTHOLOMEW, Jr. *Bristol, Ct.*

MESSRS. EDITORS—I see that a great many inquiries are made in the Cultivator, in regard to a method of cure of warts on animals. For their benefit, I will state what has proved in my hands an effectual and an easy remedy, both for man and beast.

R. Muriated Tincture of Iron one part,
Muriatic Acid two parts.

Mix them together, and apply by means of a camel's hair pencil directly to the warts. This to be done twice daily. The warts will soon crumble away leaving the parts sound and smooth; sometimes it may be necessary to cut large warts on the feet of horses before its application.

This has invariably proved successful in my hands. JOSIAH B. GALE. *Salisbury, Mass.*

Market Pears.

The two most highly renowned pears for market, are the Bartlett and Virgalieu (or Doyenné) Fine Bartletts were bought at about eight or nine dollars per barrel the past season, in the eastern cities; and single specimens are often sold for twelve and a half cents each —sometimes more than tripple this amount. This sort possesses, eminently, a very desirable quality for marketing, namely, that of ripening well and assuming all its delicious flavor, if picked a fortnight before full maturity, and even if not quite fully grown. They may thus be sent long distances by railroad without inconvenience or detriment; and if kept excluded from the light, will mature with a handsome and brilliant blush, of which the same specimens would be destitute if ripened in the light. The productiveness of the Bartlett and its early bearing, also strongly recommend it. We have raised about a peck from a tree, set out the year before, when an inch in diameter. When the tree becomes large its bearing qualities are not lessened. We never saw heavier crops of any pear, than those the present season on the old trees standing on the clay grounds of LEWIS F. ALLEN, of Black Rock,—the large specimens nearly touching each other, on the branches, bending, almost like weeping willows, under their loads

But the Bartlett has some drawbacks. It is unusually liable to the fire-blight; and the fruit matures during the continuance of the peach season, and few would pay a dollar per peck for the pears, when they can procure the most delicious peaches for a dollar per bushel.

In this respect the Virgalieu has decidedly the advantage of the Bartlett. It is much less liable to blight, and its period of maturity is long after the quickly-perishable fruits have gone. Its quality is unsurpassed for most palates; and its wide-spread reputation renders it exceedingly saleable.* These qualities have placed it far above any other autumn variety throughout western New-York and in many other places, although in most localities along the seaboard it is worthless from cracking. We should object on this account to recommending its exclusive or even very extensive cultivation, for if once fine at Boston and now deteriorated, there is a possibility that the same result may take place elsewhere. Even as far west as Cayuga county, the scab and cracking are becoming quite common, and it is not unknown in Ohio.

It becomes desirable, therefore, for those who would have more than one leg to their stools, to look to other varieties There are very few sorts that ripen before peaches—but these few may be worthy of attention, as pears will keep longer after picking and bear longer carriage than some other perishable fruits. Unfortunately there are very few sorts that are early enough to come in decidedly in advance of peaches, and among these few, the summer Doyenné (Doyenné d' eté) and Madeleine are undoubtedly the best *very* early sorts. The Giffard, Osband, and Bloodgood, verge very closely on early peaches.

The late autumn pears are so far superior in quality to those which may be termed strictly the *harvest* varieties, that *they* must be mainly looked to for profitable market culture. Besides the Virgalieu, the following give great promise,—and although well known to pomologists have not as yet been extensively produced from orchards.

* A fruit dealer sent several barrels of this pear to New-York city—a part labelled as Virgalieu, and the rest as White Doyenne. The "Virgalieus" sold for about double the amount obtained for the "Doyennes!!"

Louise Bonne of Jersey †—Well known as a large, very handsome, early bearing, and exceedingly productive variety, especially when grown on the quince, on which it flourishes with great vigor.

Buffum—also well known for its vigorous growth and great productiveness, succeeding on both pear and quince, but always to be preferred on the former for orcharding. It is of only medium size, but possesses an excellent flavor—and will be always valued for the facility with which a given quantity of the fruit may be raised.

Flemish Beauty—This admirable pear has several excellent qualities. It is large, handsome in form, fine, buttery and melting in texture, and delicious in flavor. The tree is a strong, vigorous and handsome grower, and uniformly productive of fair fruit. Its only objection is a tendency to drop too easily from the tree when nearly or about ripe, which we think may be remedied effectually by gathering before maturity. Mostly fails on quince.

Howell—A new Connecticut variety that has acquired in a very few years a high reputation—being rather large in size, fair and handsome, bearing early and proving exceedingly productive. In flavor it is not equal to the Buffum and Flemish Beauty, but is, taken altogether, a most desirable sort. These four varieties ripen nearly at the same time, or about the close of the peach season.

The *Beurre d'Anjou*, is rather later, the tree a fine even bearer of rather large size, with a fine grained, buttery and melting texture, and a high, rich, and excellent flavor.

The *Onondaga* or Swan's Orange, is a very large and showy fruit, and although of only second-rate quality, it is valuable for its uniform productiveness, early bearing, and strong, healthy growth. Best on pear stocks.

LATE AUTUMN AND WINTER VARIETIES.

Beurre Clairgeau. This is a newly introduced foreign variety, and its large size, beautiful appearance, good quality, productiveness, and late-autumn ripening, have rendered it a decided favorite among fruit raisers. Should its high promise continue, it may yet become extensively cultivated for market; a barrel of the finest rosy-cheeked specimens, on the approach of winter, would certainly command almost any price within the range of the market scale. Succeeds on both pear and quince.

Beurre Diel, an older and well known sort, is a large, rich, and fine pear, the tree growing vigorously, and yielding good crops. It succeeds finely, usually the best on quince.

Beurre d'Aremberg, long cultivated and well known, produces abundantly, and ripens near the close of autumn. For those who like a high, vinous flavor, it probably has no equal for its season; it is hardly showy enough to command the market to the best advantage. It should be cultivated on pear roots, with a rich soil.

Glout Morceau, ripening about the same time as the Aremberg, is a sweeter pear; succeeds admirably on the quince, but does not produce abundantly till several years of age.

Vicar of Winkfield, is scarcely equalled for its productiveness, the fruit being large and always fair. It continues to ripen for several weeks in succession. Unfortunately its quality is only second rate, but much depends on skill in ripening; for while the Aremberg will mature with almost no care in a common cellar, the Winkfield must be brought into a warm room just at the right time, or when maturity approaches, to complete the process.

Lawrence. With the exception of the Virgalieu, perhaps no pear is so well adapted for the market; it

† This long name ought to be shortened to "Jersey Louise." (There is another "Louise Bonne.) Some pomologists persist in spelling it full in French, "Louise Bonne de Jersey," in order to avoid a mixture of English and French, but fail in the attempt, for they never give it a pure French pronunciation.

is hardly equal to the Virgalieu in quality, but coming a month or two later, gives it a high value. It is full medium in size, fair in appearance, and the tree an abundant bearer on pear roots. It ripens late in autumn, and often on as late as mid-winter. No orchardist need fear to set out plenty of the Lawrence.

Prince's St. Germain, is a medium sized fruit, of fine quality, the tree hardy, thrifty, and productive—it is later than the Lawrence, and well worthy of market culture.

Easter Beurre. This pear, *when in perfection*, is unequalled by any winter pear. It keeps into spring. Most cultivators think it decidedly best on quince roots. It needs rich and good cultivation, in common with many other pears, to bring its qualities to full perfection. A fully grown and well ripened specimen is as much better than a small imperfectly grown and poorly ripened one, as an early York peach is better than a basswood chip.

The *Doyenné d'hiver*, is a new sort, nearly or quite as long a keeper as the Easter Beurre, rather smaller in size, fair and handsome, and of excellent quality. The tree is vigorous and productive. Of course it it needs further trial, before extensive planting.

Besides the varieties we have named, there are several others among the newer sorts that may yet prove valuable for orcharding, among which the *Sheldon, Noureau Poiteau, Beurré Sterkman, Zephirin Gregoire, Sieulle*, and others, are worthy of attention *Winter Nelis*, well known as the highest flavored early winter pear, is too small and not sufficiently showy for market. *Beurre d'Amanlis* is an exceedingly productive and very strong-growing sort on both pear and quince, with large fruit, ripening at mid-autumn, but like the Onondaga, Winkfield, and others, is only second-rate in quality.

On the whole, if we were about planting extensively for market, with a few sorts only, we should select BARTLETT, VIRGALIEU, LOUISE BONNE JERSEY, and FLEMISH BEAUTY, among autumn sorts; and LAWRENCE and EASTER BEURRE, among winter varieties. As long as mankind have such an appetite for good fruit, which they appear to have possessed for several thousand years, we do not fear but that all excellent fruit that is raised will sell well; and the more delicious sorts will always command great respect in market. Among winter and spring pears, especially, we should like to see an attempt made to produce a surplus;—while at present not one man in ten thousand has even seen a single barrel of good well ripened pears at mid-winter or in spring, and all the trees that are now growing would come no nearer to supplying our myriads of population, than the cataract of Niagara could be fed by emptying water from an egg shell.

The French or Spanish Chestnut.

I notice in your column of inquiries, that information is requested respecting the Spanish chestnut and its adaptation to our latitude. I will state that we have it growing on our farm, and producing good fruit. The young trees, nuts, or grafts on the native tree, should at first be planted under a shelter, say the south side of a board fence or out-building, or in a hollow or southern exposure. They need this care until the tree attains to about a foot in circumference, when they seem to thrive without further care. I have seen one growing on the south side of Long Island, as large as the common forest chestnut, and bearing abundant crops of perfect fruit.

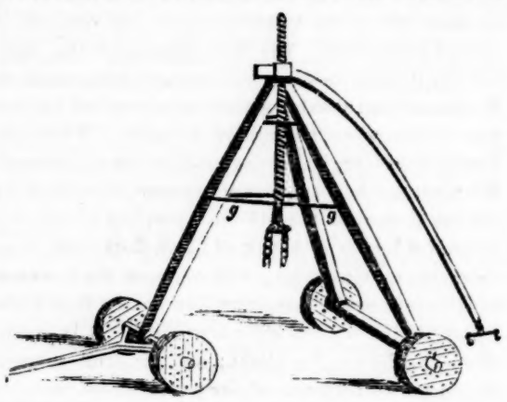
The trees we have, were raised from nuts sent directly from France. I should think it would be a better practice to plant the nuts raised here. THOS. B. ARDEN. *Beverly, on the Hudson.*

On this subject, another correspondent, J. W. L., Kingwood, N. J., writes as follows:

I have seen the large Spanish chestnut growing in Bucks county, Pa., grafted upon the common chestnut, and it appeared to do well, beginning to bear when quite young, bearing very full, and maturing properly. I saw a tree not over an inch in diameter, with several fine burrs upon it, three years after grafting. I apprehend they ought to be grafted quite early in the spring, to insure success.

Screw Stump Machine.

I send you the drawing of the stump machine as desired. The screw is of wrought iron, 10 feet long, and 3 inches in diameter, with threads three-fourths of an inch apart, square cut. The frame consists of three posts as seen in the figure, 7 or 8 inches square at the bottom, and 10 or 11 in the middle, joined together at



the top, and secured by a strong band of tire iron. Each post is hollowed at the top before it is put together, to give place for the screw. The bar posts are 13½ feet apart at the foot, and 14 feet long; the forward post is 14½ feet long and stands 14½ feet from the others at the bottom. It is fastened to the forward axle by a strong bolt firmly fastened into the post, and setting into a hole in the axle. The forward axle is usually 3 or 4 feet between the shoulders; the hind one fourteen feet between the shoulders; the braces, *g. g.*, are fastened to the back posts, and pass around the front one, to prevent sliding out at the bottom. The wheels are made of 4 inch white oak plank, doubled, and firmly pinned together, making a wheel 8 inches wide. The nut is movable and fastened to the lever by two straps of iron. The screws are cut left hand.

Fig. 2.

Figure. 2 represents the manner of fastening to the stump. First dig around one of the main roots, pass the chain under it, and pass a strong chain loosely around the top of the stump to prevent the stump from tipping too much while pulling. The large chain is usually of 1¼ inch iron; the small one of ¾ iron.

A yoke of oxen and one horse are the team necessary for working one of these machines. With the oxen they are easily moved from one stump to another. It is in every respect superior to any other machine for the purpose. Once made, if made as it should be, it needs no repairs of any amount, and will pull the largest pine stumps with great facility. I know of no place where they are made to sell; all I have ever seen were made by those who used them. The screws may be obtained at almost any large iron factory. G. F. LUCAS. *Castile, N. Y.*

Model and Experimental Farms.

The friends of agricultural science have at length succeeded, after great and persevering efforts, in establishing at least two Model and Experimental Farms in this country—one at Westboro, Mass., the other at Petersburg, Va. American farmers are beginning to move in this matter, and we shall, doubtless, soon see similar establishments in every state. It may not be amiss, therefore, to examine briefly a few of the leading objects of such institutions.

First, are they to be "Model," or "Experimental" farms? One or the other they must be; they cannot be both.

A Model Farm is one where, *so far as is known*, the best and most profitable practices are adopted; the best system of rotation pursued; the best stock kept; the best implements used; the best manures applied; and where nothing is done but what affords a reasonable prospect of profit. In short, a Model Farm is one which is managed so as to produce the greatest amount of produce, now and henceforth, at the least cost. Such farms we have already. There is not a state in the Union that does not contain several. The management of these Model Farms varies with the soil, the climate, the price of produce, and other circumstances. On one, wheat is the prominent object; on another, cheese or butter; on another, beef, mutton, pork or wool; on another, corn, or it may be even hops, tobacco, or teazels; that crop or crops which, under the circumstances, will *pay best*, is grown.

We would not be understood as advocating such an exclusive system of farming—we believe in "mixed husbandry"—but our systems of rotation, cropping, manuring, and general farm management, must vary according to circumstances. The same practices cannot be best on all soils, and in all situations. In short, no farm can be a model for all the agriculturists of the state.

An Experimental Farm, on the other hand, is a very different institution. It is assumed that we are ignorant of what constitutes the *best* system of tillage, of rotation, of manuring, of general farm management, and the object is to discover it. To do this, we must experiment—we must *try* various systems, modes of tillage, manures, &c. Some of these *may* be better than those now used—many of them will be worse. These trials, too, must be made with great care and accuracy; they must be systematically carried on for several years, or we shall draw from them hasty and erroneous conclusions. Such experiments cause serious interruptions to the general business of the farm, besides involving much extra expense and labor. The Experimental Farm, therefore, cannot be a profitable one. The experiments at Rothamsted, cost Mr. LAWES $15,000 per annum. BOUSSINGAULT'S experiments in France could only have been carried out by a millionaire; even the small experiment which LIEBIG made on his ten acre farm, cost $3,200.

We are aware that many think the profits of that portion of a farm managed in the ordinary way would be sufficient to balance the loss on the portion devoted to experiments. They may; but if they are, the experiments, involving so little care, labor, and expense, cannot be of much value. The Superintendent of the Experimental Farm in Virginia, in his recent Report, alludes to this subject, and says:

> I will only again express to your board, my increased and confirmed conviction, that your Experimental Farm will ere long become self-sustaining, if not remunerating, in its results, notwithstanding the adverse and unfavorable opinions of many.

The experiments which have been made on this farm are comparatively valueless, and in the above extract the cause is clearly revealed. Last year, not a single experiment was tried that even aimed to develope any new principle. They were experiments with this, that, or the other guano, or with superphosphate of lime of different manufacturers, the value of which an analysis would tell as well as the most careful experiment. This year we had hoped something would be done to ascertain the special manurial requirements of our most important crops. But this would involve considerable expense, so some such experiments as the following have been instituted. In his last Report the Superintendent says:

> On the 11th, two acres of pea fallow, were sown, at the rate of 1½ bushels of early purple straw wheat per acre, and on the 12th and 13th, eight acres of corn land were sown at the same rate per acre, and with the same variety of wheat. 175 lbs. of Peruvian guano per acre were applied to all. On the pea fallow the guano was well harrowed in, and on the corn land plowed under.

Now it is very desirable to ascertain whether wheat does best after peas or after corn; and it is also very desirable to learn whether guano is best harrowed in or plowed under. But the above experiments will not satisfy us on either point. If more wheat is obtained on the pea than on the corn ground, we shall not know whether to attribute it to the peas, or to the guano being harrowed in instead of plowed under. And if more wheat is obtained from the guano plowed under than from that harrowed in, we shall be equally at a loss whether to ascribe it to the method of applying the guano, or to the corn being a better crop to precede wheat than peas.

In the same Report the Superintendent says:

> Difference of soil, climate and natural productions, must ever demand some difference in the practice of agriculture; but the true scientific principles must be universal, and ought to be understood by the cultivator of the soil, whether he subsists on the varied and abundant products of the tropics, or the harsh cortical loaf of the Laplander. Nor can any fitter mode be obtained for the accomplishment of so desirable an end, other than the organization of such institutions as yours.

This is well said, and shows that the Superintendent has a correct idea of the true object of agricultural experiments—the development of "true scientific principles" of universal application. But a gentleman of his intelligence must know that nothing has yet been done on the farm for the accomplishment of this object, and that nothing can be done if the farm must be "remunerative."

On the State Farm of Massachusetts the same state of things exists. So far as the results have been published, no experiments have been made to tell us which of the various constituents of plants is required in the soil in greatest proportion by the corn or any other crop. Is it of paramount importance to discover whether De Burgs' No. 1, or Mapes' "Improved" superphosphate of lime, is best? If it is, an analysis will tell you to a certainty. It would, however, be interesting to learn

whether a pure superphosphate of lime is a good manure for corn, or whether ammonia has a marked effect, or whether the two together in certain proportions is best; whether these manures, or potash, soda, &c. are best applied to corn or potatoes, or beans, &c. &c. The manures used contained more or less of *all* these elements of plants, and it is not possible to tell to which the increase obtained is owing. The experiment with Peruvian guano and superphosphate of lime might have afforded us a little uncertain light on one point, had it been properly made; but the guano was placed with the seed, and of course burnt it up. Still we see this experiment circulated by the manufacturers of superphosphate of lime as proof that superphosphate is a better manure for corn than Peruvian guano.

If we succeed in calling intelligent attention to this important subject, our object will have been accompiished.

Profits of Poultry—Houses, Yards, &c.

L. TUCKER--In reading the appendix to the American Poultry Yard, by BROWNE, one cannot question, by the statement there made, the amount of eggs and cost of keeping, that the raising and keeping of poultry, when properly managed, must be profitable; but my experience convinces me that, although the business can be done on a small scale to a handsome per centage of profit, yet when enlarged the per centage of profit diminishes in a direct ratio, until it becomes a losing business. I had a poultry house built, with a large yard attached, fenced in such a manner as to restrain its inmates and keep out all intruders, having the advantage of sun and shade, with roosts under cover and also in the open air, and kept at a proper temperature in the winter by a glass front with a south and east exposure, and having the north well protected from the wind, and in summer by plenty of air and shade, keeping the poultry well supplied with fresh clean water, ashes, lime, bone dust, shells, corn, buckwheat, rye, oats, warm boiled potatoes, and corn meal in winter, clean straw, and occasionally with a bullock's head with the raw meat attached, and also with very inviting nest places for them to deposit their eggs in. My stock consisted of Cochin China, Shanghai, Dorking, Bolton Grey, and the common barn-yard poultry.

Although the proposition may in general be true, that what can be done on a small scale to a profit, may be done on a larger, with the same proportion of profit or capital invested, yet there is not the least difficulty in making a flock of poultry averaging about forty in number, pay a handsome per centage of profit, yet a person must be possessed of great fowl gumption to make a flock of several hundred pay him profit sufficient to remunerate him and induce him to continue long in the business.

Finding my old poultry establishment on too large a scale for profit, I began anew my poultry arrangements with an eye to the profit, by first reducing the number, then turning to page 69 of the Annual Register and Cultivator Almanac for 1855, I built me a poultry house after the model and plan there given, digging a cellar under it, and dividing it at the sills into two rooms with a floor under one, the roosting room, making the cellar and the laying, feeding, &c. room all in one—the out-door passage and the passage to roosting room from this room. The cellar makes more room, is cooler in summer and warmer in winter, and the floor under the roosting room keeps the droppings from the ground, which should always be well covered with bone-dust and ashes or shell lime, made convenient to wallow in.

The roots should be placed one above another, yet in such a manner that one set of fowls can not perch directly over others, like ladders or steps, that they can ascend or descend from one perch to another.

With me, a mixture of the large China with the Bolton Grey and common barn-yard, do the best for profit. To open the poultry yard occassionally, and give the fowls a ramble, I find beneficial, and that they consume less feed and keep in better condition by keeping always within their reach a constant supply of various kinds of food, and that chickens of the larger breeds, when properly fed, are as fat and tender as the smaller breeds. I have raised the pure white fowls—the pure white crested ducks—also the pure white turkeys, and the pure white geese, and have found them to possess more delicate constitutions while young, and to require more care and attention to rear them. S. *Plymouth, Conn.*

On the Preservation of Onions through the Winter.

EDS. CO. GENT.—In answer to the inquiry of W. H., in your last, let me say, I have been in the habit of keeping onions for market until spring, in the following manner: In a large dry cellar, capable of defence from frost, I built rough shelves from breast high to the top, say three or four, about four feet wide, and one apart. The hemlock boards, forming them, were laid an inch apart, so that the air could circulate a little, and a narrow board was set up inside the uprights, that held up the shelves to keep the onions on. On these shelves my onions, after having been stored in some out-house during the autumn, were put, about the 10th of Nov., i e., when they were in danger from frost. During the winter, they were occasionally stirred up with the hand or a rake. Some of them remained unsold until the middle of April. As I kept squashes, &c., in the same cellar, they were not suffered to freeze. I know, however, that onions will bear considerable freezing without great injury.

I once, when onions were very unsaleable, buried one hundred bushels between alternate layers of hay upon a hay mow, where they froze hard. About one half were moderately marketable in the spring. At the same time I filled a barrel with dry sand and onions, and exposed them to frost. In the spring they were worthless.

Onions should be well ripened on the ground where they grew, before being stored any where. The scullions also should be very carefully excluded, as they sprout more readily than well ripened bulbs.

White onions, i. e., the variety called the Portugal onions, are much more tender to frost, and other injury from winter, than either the red, yellow or brown onions. C. E. GOODRICH. *Utica, N. Y.*

Nursery Trees in Orchards.

I have about 2 acres of ground, on which I intend to put nursery trees (or grafts,) next spring, and on which I have calculated some day, to set an orchard; now could I set my orchard trees in the spring, say 40 or 50 feet apart, and put the rest of the ground between the rows to nursery trees, and make them both do well. D. ROBINSON. *Crown Point, Ind.*

There is no difficulty in pursuing the course proposed by our correspondent. The nursery trees will do better, and the young orchard trees will be more likely to flourish, if the former are not placed within some feet of the latter, in the same row. We have pursued this course with great success,—the constant culture given to the nursery rows, proving of great benefit to the young orchard, so that the fifth year, when the last of the nursery trees were removed, several of the orchard trees have borne from one bushel to one and a half of fruit.

Artificial Guano from Fish.

In England and France attention has recently been turned to the manufacture of an artificial guano directly from fishes, after extracting the 2 or 3 per cent. of oil which they contain. The remaining cooked fish, after heavy pressure, is ground and dried in an oven, then packed up to be sold for manure, which has proved more valuable than guano.

In this country, a company has been formed in Rhode Island for the manufacture of fish manure, and the fat menhaden of Providence river and Long Island sound will be used to produce both oil and fish-cake, and the latter being duly prepared so as to render it inodorous, will be sent into the agricultural market as an artificial guano. I have no doubt of the high fertilizing effects which this manure is capable of producing, nor of the economy of the manufacture proposed. There are doubtless many harbors on our sea coast where adequate supplies of fish may be obtained for the manufacture of guano, superior to that imported from the islands on the coast of Peru, and it is to be hoped that these home resources may be rendered available to the farmer as well as to the fisherman.

Fish manures contain phosphates of lime, magnesia, potash, soda, and ammonia, and all the nitrogen-producing materials required for the production of ammonia in the soil as needed, besides which the carbonaceous matters of their fibrine and cellular tissues produce a rich mould charged with nitrogenous matters. In case the fish-cake is saturated with sulphuric acid, the ammonia would combine to form sulphate of ammonia, which is known to be a valuable fertilizer. If more sulphuric acid be present than is required to form sulphate of ammonia, it will act on the bones of the fishes to form super-phosphate of lime, which is also a well-known fertilizer in high repute.

Since artificial guano, made directly from fishes, will contain a larger amount of nitrogenous or ammonia-producing matters than any natural guano known, it is obvious that it will require very large dilution or admixture with peat, swamp muck, vegetable mould, or common earth, before it is mingled with the soil, since it would prove too powerful an agent to come directly in contact with the seeds; for it would act upon them more strongly than even the best guano from Peru.

We copy the above from an article on Fertilizers, by Dr. CHARLES T. JACKSON of Boston, Mass., in the Patent Office Report for 1854, page 107.

It is said that millions of tons of fish can be obtained at a trifling cost on several points of our sea coast. There can be no question that they are, in their fresh state, a very active manure; and it is equally certain that, could the large proportion of water which they contain be removed, the dry matter reduced to a powder, would be a most powerful fertilizer. The only question is, can it be done so as to afford fertilizing elements at as cheap or cheaper rate than we can now obtain them in other manures. Or more definitely, can we obtain in this dried fish compound, ammonia and phosphoric acid as cheap or cheaper than we now obtain them in Peruvian guano? Certainly no other mode of manufacturing artificial manure offers such good prospects of success as the one under consideration. On this account we are very desirous that all those who engage in its manufacture, or write on the subject, may lay aside the clap-trap and exaggerated statements with which the venders of "Improved," and "Ammoniated," and "No. 1," and "Nitrogenized" superphosphate of lime, of "Poudrette," "Ta-Feu," "Fertilizing Salts," "Prepared Manure," &c., have seen fit to refresh the reading agricultural public.

Of course Dr. JACKSON would not knowingly give an exaggerated account of the value of dried fish, or of any other manure, but his remarks, as quoted above, embody one or two ideas calculated, we fear, to lead both the manufacturers and the farmers to erroneous conclusions.

Is it desirable to use sulphuric acid in the manufacture? Dr. JACKSON says:

"In case the fish-cake is saturated with sulphuric acid, the ammonia would combine to form sulphate of ammonia, which is known to be a valuable fertilizer. If more sulphuric acid be present than is required to form sulphate of ammonia, it will act on the bones of the fishes to form superphosphate of lime, which is also a well known fertilizer in high repute."

From this, we should conclude that it is very desirable to emply sulphuric acid. But we think its advantages have been over-estimated. It is true that sulphuric acid would combine with the ammonia already formed in the compound at the time the acid was added. This would be but a small quantity; and if the fish-manure is saturated with sulphuric acid, its antiseptic properties will prevent the formation of any more ammonia from the protein compounds of the fish. The addition of sulphuric acid. too, would form a deliquescent mass which would be difficult to transport, besides increasing the quantity of water. On the whole, then, it is questionable whether the sulphuric acid would so greatly improve the fish manure as the remarks of Dr. JACKSON would lead us to suppose.

Again, Dr. J. says:

"Artificial guano, made directly from fishes, will contain a larger amount of nitrogenous or ammonia-producing matters, than any natural guano known."

The value of Peruvian guano is estimated by the ammonia it contains, and this fish manure will be subjected to the same test. It is very important, therefore, that the quantity of ammonia it is capable of supplying be fairly stated. Let us see what we may expect. Natural guano is the excrements of birds feeding on fish. It is in reality fish ground to a fine powder, *with the carbonaceous matter burnt out of them.* The excrements of the birds contain the nitrogen and phosphates of the fish, while the carbon has been used to supply animal heat. It is evident, therefore, that the *proportion* of nitrogen and phosphates in the excrements will be greater than in the fish. In the manufacture of artificial guano from fish, we remove as much of the carbonaceous matter as possible, but we have no means of taking out as much of the carbon as is removed by the birds. Artificial guano, therefore, will contain more carbon, and consequently less nitrogen, than a natural guano which has suffered no loss of ammonia by fermentation or leaching. So far, therefore, from artificial guano containing "a *larger* amount of nitrogenous or ammonia-producing matters than *any natural guano known*," it is quite certain that it cannot contain as much.

We make these remarks, because we believe *the truth*, the *whole* truth, will benefit a good thing—such as we know genuine artificial fish-manure to be—more than any exaggerated statement of its merits. We repeat, fish-manure is a good article; it is *almost as good* as the best Peruvian guano, and we trust it can be manufactured so cheap as to drive the foreign guano from the market. We are now paying Peru some ten millions of dollars per annum for guano, and that man who can show us how to obtain the same elements at as cheap a rate in our own country, will deserve the lasting gratitude of every American. To be more definite, he who can furnish us ammonia of domestic manufacture in an available and concentrated form, for twelve cents per lb., will be a public benefactor.

☞ Our readers are referred to Mr. GARRETT'S advertisement of his seedling Potatoes, noticed by us last week. He commends it highly, and we do not hesitate to recommend it, so far as we can judge from the samples tried by us, and his own representations, to favorable notice.

A Chapter upon Cabbage Culture.

I have just been gathering my cabbages, and the product is so satisfactory that I am induced to give the result to your readers, with some thoughts upon the culture and worth of this important, but neglected crop. I had but a small patch; about 8 square rods. The land was a light sandy loam, well manured with barn-yard scrapings, and plowed 10 inches deep in the fall of 1854. Plowed again early in May. The seed, (York and Savoy variety,) was sown in a bed, and the plants set out in rows 2½ feet apart. The distance of the plants in the rows was 2 feet. The young cabbages suffered severely from worms and bugs. In some instances the plants had to be replaced three or four times. The "*varmints*" could be taken only while *napping*, which was before sunrise. By persevering efforts the "critters" were "kilt off intirely," and the plants shot forward with wonderful rapidity. They were hoed frequently during the summer, as the ground was inclined to be weedy. I cannot well estimate the expense, not thinking during the process of culture of calculating the result. The cabbages, generally, were even and well headed. There were a few monarchs however. From a row four rods long, I selected two, each of which measured *four feet in diameter*. An immense quantity of leaves surrounded the hard heads, which were very compact. One of these weighed 17¼ lbs. The other 17 lbs Others in the same row weighed 16½, 15, 14, 13¾, 12½, down to 6 lbs. I think the whole row would average 10 lbs. From the weight of this row, I made a calculation, which I believe is a fair one, that on an acre the enormous quantity of 30 tons of green fodder, of superior quality, could be produced Could any one desire more?

I have just been reading an interesting account of some experiments in cabbage culture, made by successful farmers in England and Ireland, nearly one hundred years ago. The experiments were carefully made, and the details of the process of culture very minutely described. They would be too long for your paper, and I will give you a short abstract of them.

Mr. John W. Baker, an intelligent and careful cultivator, in a report which he made to the Dublin Society in 1769, says. "I cultivated my cabbages on a piece of ground which had borne potatoes the previous year. It was manured with a compost of lime, earth and dung, perfectly incorporated. The plants grew upon ridges, in rows five feet apart, and were two feet from each other." Mr. Baker subsequently recommended a closer culture; the rows to be 3 to 4 feet apart, and the plants 12 to 24 inches distant, according to their respective sizes and luxuriance.

"By repeated plowings and horse-hoeings, the ground was in fine tilth, and fresh mould kept near the plants during the early period of their growth." This seems to have been the grand secret of success in all the experiments. I cannot forbear quoting the words of the eminent Tull, on the effect of good and deep hoeing: "The earth being made fine by good tillage, imbibes the dews, and when hoed deep, retains them; they penetrate deeper into the loose, open soil in the night, than the sun and air can exhale them during the day. The roots of the plants are thus refreshed, and the earth is kept cool in hot weather, which greatly promotes their health and growth; for heat and moisture are principal agents in vegetation; this appears agreeable to reason, and is confirmed by experience. It is an observation of great importance to agriculture. Farmers by good hoeing may keep their crops in health and vigor in dry, hot weather, when the unhoed crops are parched and stinted by it. It is important to notice that this good effect of hoeing, is in consequence of the earth being fine, loose and open. Hoeing of close, dry, hard earth, does not open and pulverize it at once, nor until it has been well broken, and exposed to the air and vicissitudes of the weather. The benefits of deep pulverization are very great."

Randal assures us, that in cultivating cabbages, much manure may be entirely dispensed with, by making the soil exceedingly fine Mr. Baker says "the horse-hoeing was so effectually destructive to the weeds that the expense of weeding was a mere trifle The product of an acre was 23 tons, 4 hundreds, 2 quarters, and 14 pounds; which was about 17 tons less than it would have been, could I have obtained the Large Dutch Cabbage"

Large crops were raised on land prepared in this way. It was plowed in November, again in April, and harrowed down; at the latter end of May it was thrown into five feet ridges at three bouts of the plow. The middle of June the land was manured by laying the manure upon every second ridge alternately and throwing it equally into the two contiguous furrows, by which means the plants stood over the manure as in a hot bed.

From information obtained by Mr. Young, some English farmers raised above 50 tons upon an acre.

On clays and strong loams,

	Tons.	
Mr. Turner raised	39	Average weight, 15 lbs. Distance, 2 feet by 4.
Mr. Crowe,	35	
Mr. Scroop,	37	
Earl of Darlington,	40	
Mr. Dixon,	48	

On deep, rich light loam:

	Tons.	
Mr. Yucker,	44	Average weight, 20 lbs. Distance, 2½ ft. by 4.
Mr. Middlemore,	54	

On inferior soils:

	Tons	
Mr. Lyster,	27	Av weight, 9½ and 7½ lbs. Distance, 18 in. by 4 feet, and 2 feet by 4.
Mr. Smelt,	18	
Mr. Scroop, Dalton,	21	

The variety was the large Scotch.

Mr. Baker again says, "it seems to be universally admitted that the cabbage answers all the purposes of maintaining and fattening horses, cattle and sheep. Horses eat them with surprising avidity. They are also very serviceable for hogs."

Randal, in his Semi-Virgilian Husbandry, with great assurance affirms "that oxen will grow very fat upon cabbages; that he has fed them to many cows for a long time together, without perceiving the least disagreeable taste either in the milk or butter; on the contrary, the milk was rather richer and sweeter; and that both oxen and cows are exceedingly fond of them. The same may be said of sheep, which improve in their flesh very fast, and grow surprisingly fat, yet has the mutton no disagreeable taste, so that there is perhaps no vegetable which will raise lean sheep of the largest breed sooner than cabbages" Another writer asserts, "that it has been fully proved cattle and sheep are completely fattened upon cabbages, and their flesh is as well tasted as when fed upon rich pastures. Cows fed upon them give a great deal of milk, and the butter made from it is excellent. It is a great recommendation to the culture of them, that they produce very large crops, from thirty to sixty tons upon an acre, when cultivated upon good land well manured and horsehoed Add to this the nourishing quality of the crop, their coming into use in winter and early in spring, and the improvement of the land, which is remarkable, the succeeding crops of whatever kind extraordinary great."

From these experiments it is satisfactorily proved that cabbages are a very valuable and profitable crop. From no other product can such a quantity of green fodder be obtained in such form as to be preserved for fall, winter and spring use.

Having opened the subject, I should be glad to hear from some of your correspondents, who have had experience in raising cabbages, of the best method of preserving them, and the best variety to be cultivated in this country. WILLIAM A. WHITE. *Lancaster.*

ENTOMOLOGY.

No. 6—Gaylord's Wheat-Caterpillar.

Mr. Tucker—Other engagements having engrossed my time for a few months past, I have been unable to examine and reply so punctually as was desirable to several letters of inquiry respecting injurious insects, which have been received from your patrons and correspondents. Being again at leisure, I proceed to fulfil this engagement.

W. R., writing from Cobourg, Canada West, under date of August 4th, says:

I enclose in two quills, some insects that have made great havoc among my wheat this season, which I suppose to be the Wheat-fly or midge. What I wish to know, is, if those small orange-colored things in the quill marked I. are the same species as those in the quill marked II. as I find them both in the wheat. My own impression is, that the one is the *larva*, the other the *caterpillar*, which will by-and-by become the *fly;* but not having been able to satisfy myself on the matter, I take this method of consulting your superior judgment.

The insects in the first of the quills, were, as the writer supposes, the larvæ of the wheat-midge, which is so improperly called "the weevil" over a vast extent of our country. Those in the second quill, had all perished before they reached me, but their dried relicts plainly showed that they were quite a different insect from the others. In their present shrivelled state, these caterpillars are little over the tenth of an inch long, and appear to have had a soft, cylindrical body, which is turned upwards posteriorly, and tapers to a point. The head is somewhat flattened, smooth and polished, and of a tawny-yellow color, with a few fine bristles scattered over it and the body. The neck or second segment, is also polished on its upper side, and commencing on this segment, five dull white stripes extend the whole length of the body. One of these runs along the middle of the back, and is edged each side with blackish; another extends along each side of the back; and the other, which is broader, is placed low down upon each side. The back, between the three upper stripes, is dull brownish yellow or tawny; the sides are black between the broad lower stripe and that along each side of the back, and the under side of the body is dull pale yellow. There are six pairs of feet, situated upon segments 2, 3, 4, 7, 8 and 9. In the quill were numerous gray and blackish grains, the castings of the worms, held slightly together by fine, cobweb-like threads, which they had spun as they crawled about in the quill.

The description given above plainly indicates that these wheat-caterpillars from Canada, are the same which have long been known in western New-York and northern Pennsylvania, our first and principal accounts of which appeared in the year 1839, in the sixth volume of the Cultivator, consisting of a communication (page 21) from Mr. Nathaniel Sill, of Warren, Pa., and a more extended article (p. 43) from the late Willis Gaylord. Mr. Gaylord also gave a revised account of the same worms in his "Treatise on Insects," which is published in the Transactions of the State Agricultural Society, vol. III. p. 147. We learn from the last edition of Dr. Harris's Treatise, (p. 354,) that similar worms had been brought to him from the state of Maine and also from Connecticut, and that subsequently he had himself seen them in a wheat-field in the latter state. From the description which he gives of these New-England wheat-caterpillars, they would appear to be the same as those which I have described above, except that the number of their feet is stated to be sixteen, whereas, in the specimens before me, twelve feet are plainly perceptible, and I can discern no distinct traces of any beyond these, and this is also the number given by Mr. Gaylord. These worms must hence be regarded as widely different from those of New-England, although they are so closely alike in their stripes and colors.

It is much to be regretted that the perfect insect has never been reared from any of these wheat-caterpillars of our country, that we might know what they are more definitely. Mr. Gaylord says the worms of which he writes, move like an inch or span-worm, which we should not expect them to do with feet situated as they are in the specimens before me. If these specimens show the real structure of the caterpillars, it is evident that they belong to the small group of moths named *Platypteryx;* although all the larvæ of that group which are at present known have one pair of feet more than we find in these worms. This group is placed in the family Geometridæ, i. e. the span-worm moths, by Mr. Westwood in his Synopsis of the British genera; but more recently (in Humphrey's British Moths) he follows Mr. Stephens in elevating it to the rank of a distinct family, named Platypterycidæ, i. e. the broad-winged moths.

According to Mr. Gaylord, these worms feed on the kernels of the wheat, both when it is in its milky state and after it has ripened. They grow to length of a half inch or more. When disturbed they let themselves down from the wheat-stalk by means of a fine thread which they spin. Some years they appear in great numbers, and perhaps not one of them can be found the next year; and they will sometimes be quite numerous in one wheat-field when an adjacent field will be exempt from them. Asa Fitch. *Salem, N. Y, (East Greenwich P. O.) Nov* 5, 1855.

On the Cultivation of Broom-Corn, etc.

J. O. M., in the Country Gentlemen of November 1st, wishes to know something about the raising of broom-corn, etc. I have seen some cultivated in this neighborhood, and have made observations, and with your permission will give my opinion as to how I think it should be planted and cultivated.

First—When it should be planted. We begin planting in Kentucky, about the 15th of April generally, and can plant it even later than Indian corn, and make a pretty good crop. We think it late enough here to stop planting corn by 20th of May. But if I were to raise broom-corn as a market crop, I believe I would prefer planting the first of May, for, if planted sooner, it ripens too early.

Next—how to plant. Have good corn land, and break it up well and deep. Now lay it off with a small plow, having the rows 4 feet apart; then take the seed and drill them along the row as you would English Peas, or not quite so thick, and follow with a two horse harrow astride of the row, and the corn is planted.

How to cultivate. This should be done just like Indian corn, except in thinning, broom corn can be left about 4 times as thick as you dare leave other corn, and then make a better crop I believe than if left thinner.

The corn is generally ready for cutting by the first of September. This we do by first going along the row and breaking down the stalks, so as to get at the brush the more easily; then go along with a sharp knife and cut it off. Now it is ready to take home—spread tolerably thin on the barn floor, for if thrown in a heap while yet uncured, it will be apt to heat and spoil.

A cheap instrument for clearing off the seed can be made as follows: Nail a plank, about three-fourths of an inch thick and ten inches wide, to a stationary bench or something of the sort, letting it (the plank) run above the bench about a foot. Then take a saw and make teeth in the end of said plank like those of

a comb, and we are ready for operations. Take three or four straws (as we call them) and draw them across the comb till they are clean, (pressing a little with one hand whilst you are drawing with the other,) making it ready for market or the broom maker. RICHARD YOUNG. *Springdale, Ky. Nov. 7th*, 1855.

A Run through the Patent-Office Report—II.

The next portion or section of the Report recently issued, is devoted to a brief account of the

SEEDS AND CUTTINGS RECENTLY INTRODUCED INTO THE UNITED STATES.

Seeds and cuttings from foreign countries, to the extent of several hundred kinds, and in considerable quantities, have been procured, and have been placed in the hands of Members of Congress, and of the Secretaries of State and County Agricultural Societies, for distribution in their respective districts. Some information relative to the nature, origin, culture and preparation, of the principal of these is furnished by Mr. D. J. BROWNE. Of these we shall name the most promising and important.

Of *wheats*, fourteen different kinds are specified. The Turkish Flint Wheat has proved itself both hardy and prolific in the Middle States, and well deserving of more extended culture. The Algerian Flint Wheat has a remarkably large berry, and weighs 70 lbs. to a bushel. The Spanish Spring Wheat is said to be a beautiful variety, of unsurpassable whiteness, and likely to succeed well as a winter wheat at the South, and as a March or Spring variety at the North. The Saumar Spring Wheat, and the Early Noé Wheat, are both from the central or southerly part of France, and are reported as having the property of ripening some days before the common sorts, which, if they should succeed with us, would be a great point attained, as injury by fly or rust might be thereby prevented.

Of recently introduced *oats*, the common Black Oat from France, is most highly spoken of, as being very prolific, about a week earlier than the Potato oat, and as weighing 42 pounds to the bushel. The grain is large, well filled, and of a shining black color.

A dwarf variety of *corn*, called the Forty Days Maize, from the south of Spain, is spoken of as having ripened high up in the Alps in forty days after planting. The object of introducing this grain into the U. S, was on account of its quick growth, early maturity, and sweet flavor in the green state, as well as the delicacy of the bread made from its meal. It appears, also, to be well adapted to the high latitudes, where most other varieties of corn will not thrive, and likely to form a successful cross with the larger sorts, to which it may be found to impart, in some degree, its quality of early ripening, and perhaps also its sweet flavor.

Of *beans*, the Early Dwarf French Bean seems one of the most promising It is said to be one of the most esteemed varieties in the neighborhood of Paris; very dwarfy and rapid in its growth. From its bushy and dwarfy habit, it will bear close planting, say from 2 to 2½ feet apart.

The White Lupine from the south of Spain, has been found, in Germany, to be one of those plants by which unfruitful, sandy soils, may be most speedily brought into a productive state. Its superiority for the purpose of enriching the soil depends upon its deep roots, and upon its large produce in leaves and stems. In the north of Germany it is said to yield, in 3½ to 4 months, 10 or 12 tons of green herbage It is well adapted not only to enrich, but also to open stiff clays by its strong stems and roots. In a word, it is considered the best of green manures, and almost equal to farm-yard manure.

Of *beets*, the White Silesian Sugar Beet from Germany, is said to be particularly valuable for feeding to milch-cows.

Of *grasses*, and plants cultivated for fodder, quite a large number have been sent out from the Patent Office. Among these are the Moha de Hongrie, from France, an annual, good for forage, green or dry, very productive, and flourishing well on dry soils; Sainfoin, two varieties from France, both perennial; the Chilian Clover, or Alfalfa, from Chili, a perennial variety of Lucerne, which succeeds well in our Middle and Southern States; Yellow or Black Trefoil, considerably cultivated in France, one of its recommendations being its capacity of growing well in dry and inferior soils, and being valuable as an early sheep pasture; the Alsyke or Swedish Clover, the flowers of which resemble in shape those of the common white clover, but are larger, and of a rosy tint, of a sweet and agreeable odor, much relished by bees; Perennial Ray Grass, two varieties from England, the Italian and the Improved, of which it is to be feared that, notwithstanding their many very desirable qualities, they may not succeed in this country on account of our more severe summer drouths and winter frosts; the Meadow Fescue, an excellent perennial grass, preferred by sheep to all other herbage, where it exists.

From any of our readers who have received seeds of any of the plants which have been named, we should be happy to have some account of the results of their trials in cultivating them. We should be interested also in accounts of trials made with the seeds of Sweet Scented Vernal Grass, Spurry, and Mate or Paraguay Tea. The first of these is said to be especially adapted for lawns and ornamental grounds, from its dwarfy growth and close sward. Spurry is much cultivated in France and Germany as a winter pasture, and said by Thaer to make superior milk and butter, as well as mutton. Sown here on wheat stubble, &c., it would make good fall feed and also early spring pasture, which might be plowed under with advantage for spring crops. It will grow well even on poor, sandy, worn-out soils.

Culture of the Cranberry.

MR. TUCKER—In reading the Cultivator, I observe that some of your subscribers wish information, in relation to the cultivation of the low bush cranberry. I have cultivated them with good success in my garden for several years. They produce more and better fruit on dry land than in the marshes.

The spring is the best time to transplant them. The ground should be well plowed and furrowed. Set a bunch of the plants three feet apart each way. Hoe them often to keep down the weeds, and they will soon cover the ground, and then will take care of themselves.

I ground a shovel, and went to the marshes and cut out bunches of the vines about 9 to 12 inches square, and transferred them with the moss in them, and they bore fruit the first season. This fall I picked from a few square rods two bushels of good cranberries. O. HORTON. *Sand Lake, N. Y.*

Apple Tree Hedges.

It is said that apple trees make a hedge equal if not superior to anything else, and by letting them grow pretty thick from the seed, that they will grow scraggy and ugly enough to keep out anything. They would not probably need any more pruning than they would get from the cattle eating them off, unless the farmers improve from the way they are apt to treat their young orchards! The advantages over the Hawthorn would be, a much quicker growth, easier obtaining seeds, and I presume quite as hardy and durable. The pomace itself could be sown without separating from the seed, when more convenient. The Osage Orange will not stand our northern winter sufficiently to be a dependance, and if it did would be no better. H. VAN OSTRAND. *Rock City Mills, N. Y.*

Culture of the Basket Willow.

Mr. L. Tucker—Knowing as I do that the pages of your valuable Journal are always open to the recording of information derived from experience and actual observation, permit me to say a few words on the cultivation of the Osier or Basket Willow.

The willow is a plant which likes a moist, but not a wet soil. It will grow on any ground, but it yields the best crop on a moist soil.

The preparation of the ground for planting, can be done either in spring or fall; but the fall I think the best, as it can be done after other crops are secured. It is done by plowing deep, (or in places where a team cannot be driven, a bog hoe may be used to turn over the sod,) and harrowing smooth. When this is done, I use a line of any length desired, to mark the rows, which should be three feet apart. When this is done, take the cuttings, which should not be less than ten inches long, and stick them down perpendicularly about twelve inches apart, leaving about two inches out.

Setting them in this manner, I think makes a better stock—also when the land is rather dry, the cuttings are more likely to germinate, being deeper in the ground than when set at an angle.

After setting, they require about as much attention the first year as a crop of corn, which may be done by the cultivator and hoe—keeping down the weeds between the cuttings. The second year they require the cultivator once or twice, and after this they will take care of themselves.

The cutting can be done either in spring or fall, but I prefer the spring, say March or April, especially for cuttings for planting.

The peeling is done best in spring when the bark is loose. It is done by placing the willow between two pieces of wood or iron, cut in an angular form, and drawing it sharply through. This loosens the bark, which comes off readily. It is a slow operation, but can be done by children. Mr. Colby of Vermont, has invented a machine, which he says will peel from one to two tons per day. It was my intention to see it in operation, but it was impossible for me to make my visit as intended. If this is so (and I have no doubt of it)—the great drawback to the cultivation of willows has been overcome.

The "*Leverege*" variety makes a fine Hedge; being very bitter, it will not be eaten by cattle.

The amount of crop after the second year, varies from two to five tons per acre, which can be sold at from 5 to 10 cents per lb A market can be readily obtained in New-York, when peeled and put up in bundles.

There are thousands of acres of land in this State, which now grow nothing but bogs and bushes, which might be made to yield better profits than any other land, with a comparatively small outlay; and when we know that from three to five millions of dollars worth of willows are imported into this country every year, I think we can have no fear that the price will be less for years to come. John H. Corning. *Valatie, Col. Co., N. Y.*

Reasons for Growing Ruta Bagas.

Turnips, both of the Swedish and common varieties, are cultivated to a much greater extent in England than in this country. A few years ago we met with a statement to the effect that the annual value of the turnip crop of England, with a population about the same as that of the United States, was somewhere in the vicinity of 20 millions of pounds sterling or nearly equal to $100,000,000. About the same time the turnip crop of the United States was so inconsiderable that it was not included or reported in the Census Returns of 1850 at all. According to the above estimate and the Census Returns of the Agricultural Products of the United States, the turnip crop of England not only exceeds that of the latter country immeasurably, but is fully equal to the largest crops which we raise. According to the census of 1850 the wheat crop of the U. S. was a little over 100,000,000 bushels, which at $1 per bushel would make the value of it just equal to the estimated value of the turnip crop of England. In 1850 the hay crop of the U. S. was 13,838,642 tons; and this at eight dollars per ton would again be about of the same value as the turnip crop of England. From these data it is very obvious that this crop is much more highly valued in England than in this country, and much more extensively cultivated.

We were led to make the examination of the Census Returns, &c., the results of which have been just stated in consequence of a visit lately made to an English farmer, who is somewhat celebrated for raising ruta baga and other root crops. He has raised crops of ruta bagas averaging over 600 bushels per acre, for several years, and notwithstanding that he makes as widely known as possible what he esteems as the advantages and recommendations of this crop, still very few of his neighbors have ever been induced to try to raise it. This seems truly surprising considering that the recommendations which he gives of this crop do not fall much if any below a dozen in number. Of these we remember the following as the most important.

1. Ruta bagas are a very profitable or remunerative crop, as an acre will generally produce from 500 to 800 bushels with an expenditure upon it, for seed, labor, &c., of from $20 to $30. Our informant stated that no crop he had ever raised had cost him as much as five cents a bushel, and that for feeding all kinds of stock he estimated them, by a comparison with the value of hay, &c., at average prices, to be worth as much as twenty-five cents per bushel. After deducting expenses of cultivation there would be, according to this estimate a *net* profit of *over* one hundred dollars per acre. Our informant assured us that repeated trials of this root as to its feeding qualities had made him confident, or as he phrased it, "perfectly certain and no mistake," that there is no crop that he raises, or that is usually raised in Northern, Middle, and Western States, which is as profitable, per acre, as this crop.

2. Ruta bagas make a good and palatable food for oxen, sheep and hogs. Horses, also, often eat them.

3. Sheep are particularly fond of them and thrive on them.

4. They are especially good for ewes having lambs.

5. They can be kept easily until there is a good supply of grass in the spring. They do not become pithy or deteriorated in their feeding qualities as white turnips do.

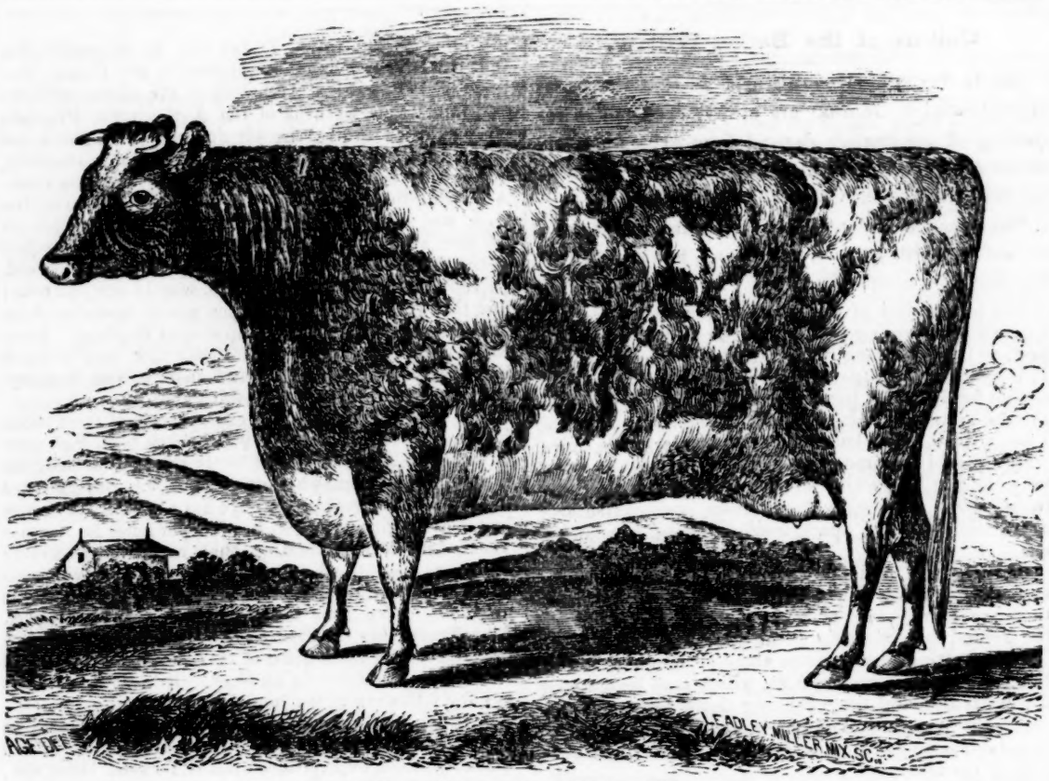
6. They can be planted as a second crop, as the last week in June or first in July is about the right time of sowing, in the latitude of 42° and of two or three degrees on each side of that.

7. They do not "run the land" as they derive much of their nourishment from the atmosphere.

8. They can stand in the ground till all other fall work is disposed of and out of the way.

These and some minor advantages of this crop, having been set forth with some earnestness and enthusiasm have deepened our conviction of the importance of it. To aid in fixing in other minds a similar conviction we have been induced to make a record of the principal recommendations which may be urged in favor of *increased* attention to this crop so generally and so unwisely neglected. Additional reasons for more attention to this crop may be found in Co. Gent. and Cultivator for 1853 and 1854. Obs.

Gas Tar is a cheap paint for farm gates and out buildings, and horses will not gnaw articles which are painted with it. E. M.



Short-Horn Cow Hilpa IV.

Bred by George Vail, Troy, and owned by S. P. CHAPMAN, Clockville, Madison Co., N. Y. Roan—Calved April 9, 1851—got by imported Duke of Wellington, 55—dam, Hilpa, imported, by Cleveland Lad (3407)—g. d. by Red Rose bull (2493)—g g. d. by Rex (1375)—g g. g d. bred by Mr. Richardson of Durham, England, from an old and celebrated milking tribe of Short-horns.

Another Importation of Short-Horns.

"Grand Duke," the celebrated Short-Horn bull, imported by Mr. THORNE of Thorndale, Dutchess Co., having recently met with an injury which incapacitated him for service, Mr. THORNE promptly went out to England, to procure if possible, an animal worthy to fill his place in the herd at Thorndale. With the assistance of Mr. F. M. ROTCH and Mr. H. STRAFFORD, editor of the British Short-Horn Herd Book, he succeeded in the purchase of three bulls—two of the "Duchess blood," said to be the only two of that strain in England—and the third, one of Mr. Booth's breeding. They are described as follows:

1. *Second Grand Duke*, red, calved Sept., 1853—got by Fourth Duke of York (10167,)—dam, Duchess 64,* by 2d Duke of Oxford, (9046)—g. d Duchess 55, by Fourth Duke of Northumberland, (3649,) &c, &c. This bull promises to be a worthy successor of Grand Duke. The price paid for him, was $5000, and there is not, probably, another bull in England, which could be sold at so high a figure.

2. *Neptune*, (11847)—Roan, calved Nov. 14th, 1850—Bred by John Booth, Killerby, Yorkshire—got by Water King, (11024)—dam, Bloom, by Buckingham, (3239)—g. d. Hawthorne Blossom, by Leonard, (4210,) &c., &c. Bloom was bred by, and a very favorite cow of Rich'd Booth, and by him presented to his brother John Booth, when in calf with Neptune, so that he may properly be said to have been bred by Richard Booth.

These two, Mr. T. brought home with him in the steamer Washington. Thet hird, *Duke of Dorset*, was left in England, being rather young to ship at present.

* This cow is now the property of Mr. Thorne, having been imported by him in the autumn of 1853. She was bought at the late Earl Ducie's great sale, the price paid for her being $3000.

Successful Competition.

We have heretofore published the list of premiums awarded to Col. Morris at our State Fair in 1854, and those awarded to Mr. Melendy of Ohio, in the same year. We now chronicle the success of Col. J. W. WARE of Berryville, Clarke Co, Va., who, it will be seen, has received, during the past autumn, the sum of $399 in prizes, and all of it, except $68, on his splendid stock of Long-Wooled Sheep.

At the Fair of the Virginia State Ag. Society at Richmond:

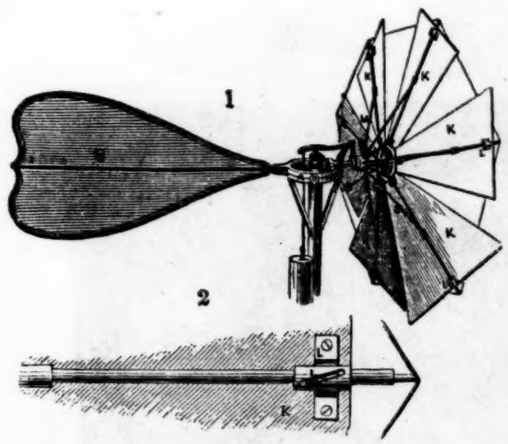
For best imported Ram and Ewe,	$40
For second best imported Ewe,	10
For best Ram and Ewe of any breed,	20
For second best Ewe,	10

At the Maryland State Fair at Baltimore:

For best imported Ram and Ewe,	$30
[No 2d prize in this class.]	
For best thorough-bred Cotswold Ram	15
For 2d and 3d best " "	13
For best pen of Ewes, "	15
For 3d best " " "	5
For best Stallion, "Cosmo,"	30
For 2d best thorough-bred Mare, "Gazelle,"	15
For best thorough-bred 3 year old colt, "Gonzales,"	15
For 2d best thorough-bred 2 year old filly, "Decca,"	8

At the Fair of the Union Ag. Society of Virginia and North Carolina at Petersburgh:

For best Ram and Ewe,	$25
For best imported Ram and Ewe,	30
[In these classes prizes given only for best.]	
For best and 2d best thorough-bred Cotswold Rams,	30
For best and 2d best pens of Ewes, "	25
For best and 2d best Mixed Long-Wooled Ewes,	25
For best and 2d best Middle-Wooled Ewes,	23
For best and 2d best Grade Ewes,	15
[In these classes prizes given only for best and 2d best.]	



The Vermont Wind Mill.

INVENTED BY A. P. BROWN, OF BRATTLEBORO, VT.

The advantage of using wind in preference to horse or steam-power has not been duly appreciated by farmers and mechanics. All the difficulties in using wind-power to advantage are overcome in the mill above represented. It is ingenious, simple, and a most perfect regulator of its own motion. It spreads a wide sail to a light breeze, and a small surface to a heavy one. An accelerated motion is checked by the action of the mill itself as readily as the steam-engine is checked by the action of *Watt's centrifugal governor*.

Its construction will be readily understood by reference to the engraving. The radical feature in which this machine differs from others is simply this: It governs the obliquity of its own fans, *k*, to the wind by means of the centrifugal force of those fans. Each is furnished with a helical or spiral slot or pin, made fast in the arm, as seen at *i*, fig. 2. In case of acceleration, the tendency of the fans is to overcome a suitable coiled spring, or a weighted lever, and to move farther out on their respective arms, and in so doing the spiral groove, or slot, slides on the pin and turns the fan more and more edgewise to the wind, presenting *less* surface. When the velocity of the wheel is diminished, the spring or weight immediately draws the fans in an opposite direction, and the same slot and pin turn them more to the wind, always adjusting itself to the necessities of the occasion.

Cure for Hoof Ail.

MESSRS. EDITORS—I will give you my remedy of treatment for cattle, when diseased in their hoofs. It is well to state that there are two distinct diseases in hoofs of cattle. One is the common foul, as we term it, with little or no swelling of the legs. It is easily cured by an application of some caustic, as blue vitriol, spirits of salts, &c. The other is the real *hoof ail*. The legs of the animal will evidently become much swolen, attended with a high state of inflammation and apparently great pain. I am indebted to an agricultural paper, taken some years ago, for the following remedy, which I have invariably used since, and in every instance, it effects a cure readily, if attended to immediately.

I throw the animal, or confine it in the stocks or gallows, and with a sharp fine tooth saw, take off the end of the hoof, or toes, nearly to the quick; then with a keen strong knife, cut rounding both behind and above the quick, until you can operate with a ready stroke upon the *quick* of the hoof, and the blood flows out freely. If a second bleeding is thought necessary, it can be done when the animal is standing, by a prick at the toe with a sharp awl, or other instrument suitable for such a purpose.

This remedy alone, has been worth more to me, than all I have ever paid for agricultural papers and I have taken them ever since Solomon Southwick started "The Plough-Boy," at Albany in 1819. Poor old man, I have been told that he could not live by the publication. I am glad, Mr. Editor, that you see better days. L. D. CLIFT. *Carmel, N. Y.*

MESSRS. EDITORS—I noticed in the Nov. No. of the Cultivator, an inquiry, signed by L. C. W., Granville, N. Y. Without attempting to tell what the disease is, I will state the remedy.

Draw a small, well-twisted rope, through the foot several times, till the foot is thoroughly cleaned; then sprinkle in a table-spoonfull of well-pulverized blue vitriol; and repeat the operation two or three times, as the case may require; and you will effect a cure in from six to fifteen days. In this way I cured two cows in about two weeks, that were very lame; one so bad that she could hardly touch her foot to the ground. And one yearling heifer, that was not so bad when I discovered it, was permanently cured in less than one week. O. D. GRAY. *Castle Creek, Nov. 5th, 1855.*

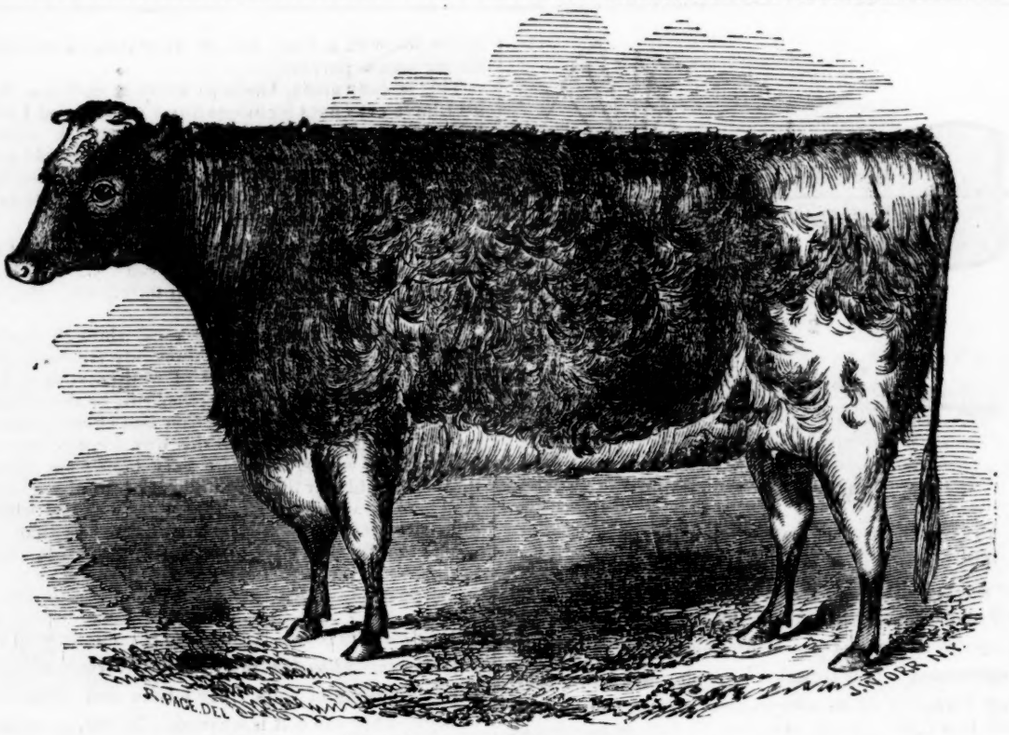
Training Colts.

MESSRS. EDITORS—An inquiry is made in your last paper in regard to the proper time to commence the halter breaking of colts. My advice and practice is, to begin when the colt is weaned. In fact, it ought to be rendered as docile as possible at an early age. Before you wean the animal, it ought to be learned to eat sweet apples from the hand, or take a little oats or bran; and while doing this, gently stroke its head and neck; by degrees accustom it to this usage, and then slip a halter over its head. The best kind is a head-stall halter, made of either rope or leather. But if the colt is very timid, it should be made of rope wound round with some cloth so as not to hurt its head or nose. Not one colt in ten, will give you any trouble if you commence soon enough and are patient enough. Should it object to be led or pull back, take the halter off, and some morning of better humor it will lead; but if not, have a strong halter and let a strong man take hold of it while another anoints its rear with a good whip, using no more severity than is actually needed.

If the animal perseveres in pulling back, when it is tied, tie it to a tree or post with his heels near a small pond or brook; and as he pulls back, the halter if not too strong, will break, and the splash in the water will frighten and cure him. Or tie him to a post, and let him pull himself down and then flog him roundly till he gets up, and repeat until cured. Except in the case of the pond, have a halter that he cannot break, and pick out strong posts when you tie him. JAMES O. MILLER, JR. *Montgomery, N. Y*

New Apple.

The apple, of which specimens were sent us by C. E. BOARDMAN, of Cairo, N. Y., is a beautiful variety, rather large, oblong oval, with a handsome blush on a delicate, waxen, pale yellow skin, and would be worthy of a name and cultivation, if it did not lack one essential quality—*flavor*—in which respect it resembles the Maiden's Blush and Cranberry Pippin—but from the specimens before us, we think it inferior to the former of these two. Being also a moderate bearer, it is less valuable than would be otherwise the case. We cannot, however, judge of the quality of a fruit satisfactorily, from a few specimens, sent under disadvantages to a distance, and perhaps another year may modify a decision of the present.



Short Horn Heifer Anna.

The property of Messrs. B. & C. S. HAINES, Elizabethtown, N. J.—Roan, calved April, 1852—got by Duke of Exeter, 449, out of Gertrude by Paular, 807—Snowstorm, by Duke of Wellington, 55—Old Snowstorm, by Alexander, 5—Fashion, by Otto, (9463)—Kirker, by Moscow, (9413)—Princess, by Wellington, (684)—Old Princess, by Winyard (703.) [The figures in parentheses, refer to the English Short Horn Herd Book—the others to the American.]

Good Dairy Cows in St. Lawrence.

OFFICE ST. LAWRENCE AG. SOCIETY,
Ogdensburgh, N. Y., Nov. 19, 1855.

MESSRS. EDITORS--I have this day received the enclosed from the writer, and take pleasure in forwarding it for publication as written. Mr. SHEPARD is the same person, whose six cows took the first prize of this Society in 1854, as the best six exhibited; and the record of whose performances in the milk-pail, were published in your paper, (p. 361, vol. 4,) and a challenge given to any person in the State to produce six better cows, not of the Ayrshire breed.

H. G. FOOTE, *Sec'y.*

H. G. FOOTE, ESQ.—In the Country Gentleman of Nov. 15th, on the first page, is an article headed "The Model Prize Farm of the Empire State," and when he speaks of the dairy, he foots up the proceeds of five cows, from April 15th to Nov. 15th, at $61,38 each, including milk sold and used, and butter made in the winter following. We have kept an account of butter made this season—have milked five cows—two came in June 1st—two July 1st, and one Sept. 10th, but milked her during the summer up to coming in. From those cows we have made, up to Nov. 15th, and it would perhaps be no more than right to say five cows from June 15 to Nov. 15, 152 days:

Butter, 795 lbs. at 21 cts per lb.,	$166.95
Cheese, 135 lbs. at 10 cts. "	13.50
Calves, raised 6, sold 3 at $15, and 3 on hand,	90.00
Allowing 100 lbs. of pork to 1 cow, would be 500, at $10 per cwt.,	50.00
And then say 2 quarts of milk per day for family use,	6.08
	$325.53

Or $65,30 per cow, without counting any milk sold or butter made in winter. I think that the question as to "Who can beat this," is answered.

Now if you think best and will take the trouble to put this in shape and send the editor, I will be much obliged. E. M. SHEPARD. *Norfolk, Nov.* 19.

Bloody Murrain in Cattle.

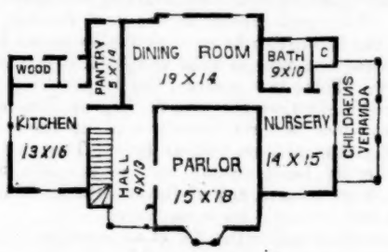
Many cattle have died here this past summer, with the bloody murrain. I have lost four head with it. Can you or any of the readers of the Country Gentleman, state the cause, if my opinion is erroneous. It has always with me, fastened itself upon the most valuable and thriving cattle. The symptons are drooping and twitching of the head, with a quick pulse. In an hour or two there is blood discharged with the urine, and also the fæces, and in twenty-four or thirty-six hours, death relieves them. I have tried several remedies (or at least said to be remedies,) but with no effect. I have been unable to get any physic to pass them; even gun powder and soap did not find its way through, and bleeding was like adding fuel to fire. I opened two cattle (a cow and four year old ox,) and found the manyplus swollen to twice the usual size, and upon cutting it open, found it very hot, and the food tinged with a deep verdigris green, and also the veins in the animal were entirely freed from blood. My opinion is the animal eats something that poisons the stomach, or else they have an appetite to swallow more food than the powers of the stomach can digest and the system consume, which causes a stagnation, and the effort to discharge it, compells the blood to take an unnatural course, and is passed with the urine and excrements.

Will some one please reply to this through the Country Gentleman. J. M. JESSUP. *Matherton, Mich.*

*GOTHIC COUNTRY HOUSE.

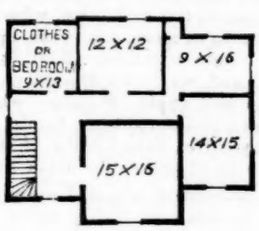
Gothic Country House.*

In order to avoid the fault of the common gothic cottages, seen in all parts of the country, namely a profusion of flimsy ornamental carvings, we present the above view of a simple, well proportioned, and sufficiently tasteful country residence, which may be afforded by most farmers in comfortable circumstances. It need not cost, if built of stone or brick, more than twenty-five hundred dollars; and with wood, eighteen to twenty hundred, might be sufficient for its completion



Principal Floor.

Its exterior needs very little description. There is little or nothing about it which is added purely for ornament, and this materially lessens the expense of erection. The steepness of the roofs prevents danger of leakage at the receding angles, while this quality is not too glaring to detract from its neatness.



Second Floor.

The plans of the interior nearly explain themselves. From the hall, or entrance, ready access is had to the parlor, dining-room, and kitchen, while the latter is rendered less conspicuous by the intervening stairs.

* This is one of the beautiful original designs for country houses, furnished by our associate, Mr. THOMAS, for the Ill. Ann. Register for 1856.

The dining-room is longer and narrower than common—a more convenient form for its usual purpose; it is, of course, intended in this moderate plan to serve as a family or ordinary living-room. The bath room may be used, if desired, as a children's bed-room. It will be observed that special attention is given to the comfort of children, by providing them with a pleasant veranda, instead of attaching it to the parlor, a room far less frequently used, and used too by those who can well forego a little comfort for a most interesting class of the human race, quite as much deserving, but too often thrust aside to make room for full-grown loungers.

A small wood-room is appended to the kitchen—a detatched wood-house having been found best, being less noisy, and supplying less dirt and litter. The wood room is occasionally filled from it. The chamber over the kitchen may be finished if needed, for the hired man or domestic, and reached by a small separate flight of stairs.

Trial of Seeds from the Patent Office.

MESSRS. EDITORS—In yours of 29th of Nov., you have an editorial, mostly, relating to "seeds and cuttings recently introduced into the United States," through the agency of the Patent Office. After enumerating and remarking upon a great variety of seeds you say—"From any of our readers who have received seeds of any of the plants which have been named, we should be happy to have some account of the results of their trials in cultivating them." Having experimented with a goodly number of the imported seeds, &c., the past season, I herewith furnish you with "the results of my trials in cultivating them;" and if you find my account too lengthy for your columns, omit such portions as you think proper.

CABBAGE AND TURNIP TRIBE.

Of the *cabbage* and *turnip* tribe of plants, I had several varieties. For the turnips, the first week in June carted on to a plat of green-sward, warm fresh manure at the rate of thirty cart-loads per acre; ground well plowed, rolled and harrowed—drills 27 inches asunder; a sprinkling of De Burg's superphosphate dropped in the drills; seed sown by hand, and covered by the head of a rake. The plants came up well, and were not attacked by any kind of insects. They were gradually thinned, so as to stand in the drills from 18 to 24 inches.

The two first drills, on the north side of the plot, were sown with "Ashcroft's Sweedish turnip," labelled, "A large variety, with a reddish top, and

yellow flesh, hardy and of quick growth." With me they have proved fully equal to the above description. The top of the bulb is reddish, not the leaves. For the table, they are now the best variety, that I have ever grown, and a large portion of them are almost as perfect in form, as if turned in a lathe. Should they prove as good in future trials, they will become a great favorite with turnip culturists.

The two next drills, "River's Stubble Sweedish Turnip," labelled, "large and first-rate sort in every respect, especially for late sowing." This variety came fully up to the chalk; the bulbs were rather larger, but not so handsomely formed as Ashcroft's, and we do not think them as good for the table. This turnip would probably succeed well on stubble ground, after a crop of wheat or barley had been harvested.

The two next rows, "Sutton's Purple Topped Hybrid Turnip from England, the hardiest, largest and most nutritious of all hybrid turnips"—so said the printed label upon the package, and I shall not contradict the statement. They produced enormous leaves, and I gave them a wide birth, about two feet each way, which is near enough. This, with the two next varieties, are of the English, or flat kind. They were sown too early. The seed, according to the ideas of some of our "old fogies," should have been kept out of the ground till the full moon in July. The three kinds produced heavy crops, but grew somewhat corky. They were fed to my oxen and young cattle.

Two rows "Yorkshire Paragon Turnip, a fine, new white globe variety, very large and solid"—so said the printed notice upon the package; and as far as I could determine, they proved "true to their kind."

Two rows of Lincolnshire Red Globe Turnip; a superior variety more solid and larger than any other variety." If they can grow better turnips of this variety in Lincolnshire, England, than I have raised this season, I should like much to see samples of them.

One row "German Greens," a fine plant for boiled greens. The leaves are thick, succulent, and like the Scotch Kale, very much crimped. A plant well worthy more general cultivation. A few roots taken up in the fall, stored in the cellar, and sat out in the spring and a dozen or two of seedlings, properly cared for, would keep up a succession of greens from early spring till autumn, and would save the "women folks" the labor of scouring the fields in search of a mess of dandelion.

Two rows, "Kohl Rabi." This plant seems to be a "Fusion" between the cabbage and turnip. The *kohl* rises in a thick stem about eight inches out of the ground, terminating at the top into a globular form, somewhat like a large Swedish turnip, the bulb of a milk green color. This vegetable is sweeter, more nutritious, and more solid than either the cabbage or white turnip: produces a greater weight per acre than the latter; it is also hardier and keeps better than any other bulb, and imparts, when fed to cows, but little of that flavor known as "turnipy," either to butter or milk. The seed sown at the time of sowing the Swedish turnip, and cultivated in the same way. The bulbs may be kept sound and nutritious until very late in the spring, even later than those of the Swedes or ruta baga turnips. The above is principally copied from the last Patent Office Report. I cultivated about 200 plants of the Kohl. I cut up half a dozen of them, 3d day of October. They averaged six pounds per bulb. These, however, were of the largest size.

The next row was sown with Early York and Milan Cabbage seed. I will here remark, that the plants removed and set on similar land, did altogether better than those left and cultivated in the drill. From this I infer that transplanted cabbage do best.

On the 12th of June, carted at the rate of 30 loads of partially fermented manure upon sward land adjoining the turnip ground already described; plowed, rolled and harrowed the same as for turnips. On the 14th commenced setting cabbage plants. The two north rows were "pure Early York," seed from the Patent Office; holes for the plants were dug with a hoe; plants set by hand, not dibbled.

First row, 12 plants, east end, Peruvian guano, (about a teaspoonful mixed with the soil excavated by the hoe,) next 12, superphosphate; next 12, Mexican guano; next 12, same amount of gelatine, (an artificially prepared manure, manufactured from old boots, shoes, scraps of leather, &c; a sample of about 20 lbs. was sent to me to experiment with from the manufacturer, Boston.) Second row had the different kinds of manure reversed, that is, the gelatine was used in the hills of the 12 plants opposite the guano—the guano to the 12 plants, west end of second row—superphosphate and Mexican guano reversed in the second rows. Very much to my surprise, I was never able to discover the least difference in the plants, from the different manures, from the time of planting till harvesting.

The two next rows, planted with "Milan, healthful or salutary cabbage, selected by the agent of the office in France." This cabbage very closely resembles the choicest variety of Savoy, growing much larger, with more compact heads than any Savoy I have ever raised. For the table I put them down No. 1. A heavy, warm rain the 2d day of October, caused many of the York, and some of the Milan, to "*burst* their boilers." Next day I cut a large wheelbarrow load of the Yorks; they averaged six pounds each—rows 2 feet apart, plants 18 inches in the rows. Great numbers of the Milans weighed from 12 to 14 lbs. each. The manure used on the balance of the ground was about an equal mixture of the four kinds above named.

The two next rows, "Mammoth Brockoli." They produced a large amount of foliage, but none flowered.

The turnip crop has been said to be the sheet anchor of British agriculture; but the climate and temperature of old England and New England are quite dissimilar. With such seasons as the past summer and autumn, the turnip can be most profitably grown here; but with such seasons as 1853 and 1854, it is a precarious crop. Those two seasons, the fly took the plant in the seed leaf; then the drouth, lice on the leaves fingers and toes and rot, nearly used up the crop of cabbages and turnips on half an acre. The past season, neither fly, louse, drouth, rot, or scarcely finger and toes, have injured any of the several varieties of cabbage and turnips I have cultivated.

But notwithstanding the risk of an occasional failure of the turnip crop, I think it would be for the interest of most farmers to grow them in connexion with other green forage, both for autumnal and winter feeding. Some sort of succulent food, in connection with the dry winter foliage, usually fed to our cattle, is indispensable to their perfect health and thrift.

Our cattle were orginally created and constituted to subsist their lives-long on green and succulent forage. By domestication they have been gradually introduced from warm regions to the cold north, where they have to be fed six months or more, each year, upon dry, and too frequently, innutritious food. Now, as Sam Slick says, "this aint *natural*." Suppose 90 per cent of the cabbage, turnip and apple, is *water*—what of that? I had rather have 90 lbs. cabbage, turnip, or fresh apple juice, for my cattle, than 100 lbs. of ice cold water such as nine-tenths of our cattle drink every winter.

Of the different kinds of wheat, I sowed about 20th of September, in drills, 18 inches apart, the following kinds, viz: Cape wheat, from the Cape of Good Hope, procured by Commodore Perry, of the Japan Expedition; Turkish Flint wheat, from Mount Olympus in Asia; Pithusian wheat, from the Island of Ivica; wheat from Japan; Early Noé wheat, from France. "This wheat has the property of ripening some days before the common sorts; if it succeeds in our climate in this respect, a great point will be obtained. A single week thus gained in ripening would

often secure the crop from injury by the fly or rust, aside from the advantages to be acquired from an early market." Algerian Flint wheat from the province of Oran. This variety has a remarkably large berry, rather dark-colored and weighing 70 pounds to a bushel. The above named six varieties came up well; no two kinds look alike; a difference in color is plainly visible at the distance of several rods. One half the length of the Pithusian wheat blades are now brown, as if killed by frost.

Early Bassano Beet. "This variety comes into use a week or ten days sooner than any other sort. Roots flat, turnip-shaped, light red; flesh white, circled with rose color, very tender and juicy, and will grow to good size on light soil." So says the Patent Office Report, and I can attest the correctness of the statement. Of several varieties raised in my garden the past season, this had the preference over all others at my table.

Vosge's White Carrot, from France,—produced carrots precisely like seed procured at one of our stores. Not first chop by a long chalk.

St. James' carrot from England—real beauties—nearly all of good size; dark yellow. For the table and marketing, none better. Probably would not yield as heavy crop as the Altringham or white Belgian.

The Hollow Crowned Parsnip did better than the large Dutch. Grew some on sandy, and some on dark moist loamy soil—very fair crop.

Early white Onion. These did a little better than some other varieties I cultivated. Some of the Whites grew to the size of a dollar. My other sorts were all scullions.

Sea Kale and True Giant Asparagus—came up well. Whether asparagus is Giant or Pigmy, depends much upon the manner of its cultivation.

"Fluke Potato." Planted seven good sized ones, and obtained four times the number, the largest as big as good sized walnuts—hope they may improve some next year.

About the 12th of June, received some French Prune scions, most of them in bad condition. The scions were grafted into plum stocks on the 15th of June. Two only grew, one of which has grown nearly five feet.

A package of Sweet Corn, much larger ears, and later than the kind I usually cultivate. Yet is was very productive and good. There was one objection to it—the ears were so large that none but persons having the biggest sized mouth, could eat it the natural way, that is, gnaw it from the cob.

Baden Corn. Too late in maturing, for the Granite State. However, I suppose New Hampshire farmers could do what Mr. Baden did—by careful and long continued selection of seed corn, produce four or five ears, where they now get but one or two.

Spurry. Received a package from the Patent Office several years ago. Sowed on sandy land. It produced a matted mass, similar to chickweed; next year the land was laid down to grass. It has once since been plowed and planted; the spurry came up, and proved a troublesome weed.

This summer I found it among my hoed crops, on a distant part of my farm from which it was originally sown. My impression is, that once introduced on to a farm, the farmer would find it an ugly customer.

I have tried the Lucerne, Orchard grass, Tall Meadow Oat grass, Ray grass, and Sweet Scented Vernal grass. To succeed well with Lucerne it must be sown on a deeply worked soil; sown in drills, and kept clear of grass and weeds—for one or two years. The Orchard grass, is too apt to grow in tussocks. The Meadow Oat grass, when headed out, looks beautifully, but cattle do not relish it, either green or made into hay. It is earlier than any other of our cultivated grasses, and sheds its seed very easily. I introduced it on my farm a dozen years ago. I do not consider it quite so great a pest as the daisy, (white weed,) or Canada thistle, but most heartily wish it was extirpated from my farm, seed, root, and branch.

Twice I have attempted to cultivate the Ray grass. It came up and flourished well the first season. Next year but very little to be found. Third season, all gone.

The Sweet Scented Vernal grass gives a very fragrant smell to hay, when drying. The long green leaves, done up like sticks of twist, and placed in a snuff box, give the snuff an odor equal to the Spanish bean. Once introduced in a pasture, or on to a farm, I think it would maintain its foot-hold.

"All flesh is grass," so says the Bible, and so said Gov. Wright at your State Fair. But till better advised, I think most of our farmers will do as well to cultivate Clover, Herds, or Timothy, and Red-top grass, with a sprinkling of white clover, or honeysuckle, as they will with any other grasses that can be introduced among us. L. BARTLETT. *Warner, N. H. Dec.* 3. 1855.

Mowing Machines in Essex Co., Mass.

We are indebted to J. W. PROCTOR, Esq., for a Report on the Mowing Machines which competed last summer for the premium offered by the Essex (Mass.) Agricultural Society, for the best and most satisfactory experiment with a mowing machine, operated by two horse power, on not less than fifty acres, on any farm or farms within the county. A premium was also offered for a similar experiment with a *one horse* machine, but there was none entered. The following facts are abstracted from the statements of the competitors:

No. 1. Manny's machine, made by Adriance & Co., of Worcester, used by W. F. Porter, of Bradford, horses weighing 2500 lbs., cut 116 acres—average time of cutting, 54 minutes per acre—average quantity per acre, 1¼ tons.

No 2. Ketchum's machine, made by Ruggles & Co., of Boston, used by Geo. B. Loring, of Salem, horses weighing 2000 lbs., cut 51½ acres—average time of cutting per acre, 52 minutes—average quantity per acre, 1¼ tons.

No. 3. Manny & Co.'s machine, made by Adriance & Co., of Worcester, used by Horace Ware, of Marblehead, horses weighing 2100 lbs., cut 54 acres—average time of cutting per acre, 48 1-6 minutes—average quantity per acre, 1¼ tons.

After a careful examination, and a free discussion of all the points presented, it was determined by a vote of a *major part of those present*, that the premium of $50 be warded to W. F. Porter of Bradford.

In making this award for *the work done only*, the committee wish it to be distinctly understood that they do not intend in any manner to give a preference for one machine over the other,—because they do not feel themselves sufficiently informed as to the principles involved in the structure and operation of the machines, to express such a preference. They indulge the hope that it will ere long be in the power of the makers to make them more complete, both as *to the quality of the materials* and *the manner in which they are put together*. Notwithstanding the satisfaction they have experienced in witnessing the *work done*, they are constrained to say that the accidental injuries have been so many, and so oft occurring, that they cannot recommend these machines without this qualification.

The committee are satisfied that it has been unequivocally demonstrated, that one man with a good pair of horses or oxen, suitably trained to work, can cut one acre of grass an hour, yielding from one to two tons to the acre,—or from 8 to 12 acres per day, under favorable circumstances—at a cost of labor not exceeding *fifty cents* per acre.

Leached Ashes and Lime as Fertilizers.

The remarks in the Country Gentleman of Nov. 22d, on the subject of Leached Ashes as a Fertilizer, have induced me to offer a few suggestions to *you*. I have used leached ashes on potatoes for many years. I have found to my satisfaction, that a mixture of equal quantities of ashes and plaster is better than the same quantity of plaster. I have applied the mixture to the corn as soon as the corn was up, and after the first hoeing. I have also had a boy to drop the mixture on the corn, or in the hill as the corn was planted. The latter is the best way to apply, according to my experience. I think far the best. I have mixed unleached ashes with the plaster, and applied it in the same way, and found no benefit; there was no apparent difference between that where this mixture was applied, and where there was none. I tried it but one year, and as plaster has but little effect some seasons, the season may have been the cause.

My ashes are made from the wood burned in the house, and our soap is made from them early in the spring, and the ashes stand in the leach till about planting time, say about eight weeks; some years not exposed to the atmosphere two days, except the surface at the top of the leach, and in some seasons very little rain falls during the six or eight weeks. Could these ashes, when in the leach, and for so short a time, have obtained from the rain water and atmosphere the *nitrates* to which you seem to attribute the fertilizing or valuable qualities of leached ashes? (*a*.)

I one season found my ashes so wet that it was difficult to mix them with the plaster. I dried them in a kettle over a hot fire. I found no benefit from them, or very little, that year. Did the burning them over again injure the ashes? or was it caused by the season and the soil to which they were applied? If Mr. EDGERTON'S speculations be correct, may it not be attributed to the particular kind of wood from which the ashes were obtained? (*b*.)

I have two farms. On one the soil is generally a clay loam on a lime rock. The lime rock is near the surface, and the springs of water are so impregnated with lime that the *tea-kettle* must be cleaned out once in three months. There are on my farm deposits, 20 feet in depth, of what appears to be pulverized lime. I send you a sample. It makes the most beautiful white lime I ever saw. In the early settlement of this town, my father burned this for lime. It was difficult to burn, on account of the difficulty of getting the fire or heat to pass through. But the question is, where did this lime come from? or how was it formed? From the appearance of these deposits and the brook, (called Lime brook,) the stream must have been dammed up, and the lime in the water settled. (You may call this speculation.)

On my east farm, near the foot of the Green Mountains, the water is soft, and the stone flint; no lime gathers on the tea-kettle from the water. Will the trees growing on limestone land, contain the same amount of silex as the trees grown on the land where silex exists, and no lime visible, and where none is discovered in the water by common use? In those seasons when I could discover no material benefit from the application of ashes, can the failure be attributed to the soil? I should perhaps have consulted an agricultural chemist, and he might have told me to be careful and put the ashes obtained from wood grown on the limestone land, on the soil where silex predominates. (*c*.)

I know a person who had for many years occupied a farm on the east side of the Green Mountains, where the water was soft. He had used lime there as a fertilizer to great advantage. He purchased a farm near me. Almost the first work he did, was to erect a lime kiln. I remarked to him, I thought the demand for lime would not justify the expense. He said he should burn it for his own use, to put upon his land. He stated what benefits he had derived from the application of lime to his land on the other side of the mountains. I expressed the opinion that he would receive no benefit from it on his farm. He burned his kiln, and put about 20 loads of lime to the acre on the same land from which he took his stone to burn. And the effect was about the same as to carry sand as a fertilizer on to the sandy plain between Albany and Schenectady.

After all, from a long life devoted wholly to the farm, and of late years somewhat to the speculations and facts disclosed by Agricultural Chemistry, I have come to the conclusion that there are more fertilizing matters floating in the atmosphere, and falling on the earth in dews, rain and snow, than is generally imagined; and that a proper preparation of the soil to receive these fertilizers, is best calculated to procure a good crop. I would not speak lightly of agricultural chemistry or science. Great good has resulted from it,—more I think, however, by turning the attention of the practical farmer to his own experience, than from the knowledge he obtains from chemical experiments. Nature, no doubt, has many secrets which, if unveiled, would be highly beneficial to the farmer, and by torturing her in ten thousand ways, she has revealed much that is valuable; yet all confessions obtained by torture, can not be safely depended upon as truth; not unfrequently it has happened that by torture the subject has revealed what was taken as truth; but by the application of a more refined process of torture the subject has, with more apparent sincerity, falsified his first confession. May not this apply, in some degree, to the disclosures made by the agricultural inquisition? J. S. PETTIBONE. *Manchester, Vt*

REMARKS.

(*a*.) It is not probable that in so short a time, and under such circumstances, the leached ashes could absorb any notable quantity of nitric acid and ammonia from the atmosphere. When mixed with the soil, however, they may obtain these fertilizing substances from the air and rain with great rapidity. It must be recollected, too, that, according to the ingenious hypothesis of Prof. WAY, on which these speculations are based, the plant takes up its silica as an ammonia-silicate; and we have assumed that leached ashes contain the silicate of alumina and soda or potash, which, when brought into contact with ammonia, will be decomposed, and the silicate of ammonia be formed. If this is the case, leached ashes may act beneficially by supplying to the soil, not ammonia but that substance which, when combined with the ammonia of the soil, the air and rain-water, is especially needed by Indian corn, wheat, and all plants containing a large quantity of silica. A light sandy soil is probably much more deficient of the double silicate of alumina and soda, &c., than a clay soil, and we should, therefore, expect a greater effect from *fresh* leached ashes on sandy land than on the clays, while *old* leached ashes *may* exert as great an effect on the clay as on the sandy soil. In the former case the land is supplied with the means of preparing for the plant its appropriate food; in the latter the food is furnished already prepared. It does not follow, therefore, that because *fresh* leached ashes, which could not have obtained before they were applied to the soil ammonia and nitric acid from the atmosphere, have a good fertilizing effect, that, therefore, the fertilizing effect of leached ashes cannot be ascribed to their supplying the plants with ammonia or nitric acid. The fact that leached ashes supply to many soils fertilizing substances which unleached ashes do not furnish, cannot be doubted. We may be wrong in ascribing it to the ammonia and nitric

acid, or to the double silicates, but we have no other hypothesis that agrees so well with the facts of practical experience. We must repeat, however, that we consider these views quite hypothetical.

(*b.*) Prof. WAY states that burning destroys the power of the double silicate of alumina and soda to combine with ammonia. If, therefore, leached ashes act as we have assumed, burning them after leaching would destroy or greatly impair their fertilizing action.

(*c.*) We do not fully understand this question. The composition of the soil is supposed by some chemists to affect the composition of plants grown upon it. There are numerous facts, however, that we cannot now mention, which have led us to doubt whether the same plant, *fully matured*, differs materially in composition according to the soil in which it is grown. Of course the ashes from hard wood would not be of the same composition as the ashes from soft wood, but the ashes of either would be the same when grown on soil with "no lime visible" as on "limestone land." At any rate, the difference would be too slight to affect the manurial value of the ashes, leached or unleached. If our esteemed correspondent has any facts bearing on these points, we shall feel obliged if he will communicate them to the readers of the Country Gentleman.

Large Ruta Bagas.

Our readers will remember that in a late number we published a notice of several very large roots of this plant, namely, 10 weighing 112 lbs., or more than eleven pounds each as an average; and another weighing 16½ pounds,—accompanied with the inquiry, "can any one beat it?" Of course; for what has been once done, may be done again. In the year 1836, when the Ruta Baga crop was much more extensively cultivated in western New-York than at present, a root was selected from a crop raised by Wm. R. Smith, of Macedon, Wayne county, which weighed *fifteen* pounds—and from a crop raised by Edward S. Townsend, of Palmyra, in the same county, three were found of equal size to this, and one which weighed *eighteen pounds*. It would apparently not go into a peck measure. The soil was very deep and fertile, being the site of an old removed stable, the season was very favorable, and *plenty of room* was given for growth—a thing too often neglected, and which the ruta baga especially needs. Several square rods yielded at the rate of 1200 bushels per acre—the piles of these monsters were indeed striking. The weighing was done in the presence of one of the editors of this paper.

[The above remarks were penned before the notice of still larger specimens, in a late No. of the Country Gentleman, came to hand. These show however, the great importance of a very highly enriched, and still more of a *well intermixed* soil, for the *same amount* of manure as existed on the site of the old stable, applied in the common way in the season of sowing, would certainly not have produced one third the size, as multitudes of experiments have proved. We should be glad if our scientific agriculturists, in the course of their reasonings and discussions on the relative value of yard manure and guano, would take into consideration *the manner of application to the soil*. For it will be reasoning to no purpose, to go into a calculation just how many miles and rods it will pay to draw manure, without knowing whether, when it reaches its destination, it is to be thrown on top of the earth, and perhaps half of it plowed under in lumps as large as a fork-full, and there remain; or whether it is finely pulverized and thoroughly intermixed by repeated harrowings and occasional plowings. Where the latter mode of treatment is thoroughly applied, the effect of a ton of yard-manure is often at least QUADRUPLED, when compared with the ordinary careless manner of burying—such at least is the result of the experiments we have witnessed. And the superiority of old enriched soil with the fertilizing ingredients completely diffused, as in the ruta baga crop above mentioned, amply corroborates the opinions.]

The Sting of Wasps, Acid.

We have never found any thing so efficacious for venomous stings, as a paste made of saleratus. A sting in the finger by a yellow wasp which felt as if it nearly pierced through, was entirely relieved of the swelling and of every other unpleasant feeling, in a short time, except the simple soreness of the *puncture*, like that of a needle, by this application. There may possibly be other alkaline applications better than this, but we do not know them.

In corroboration of the correctness of the theory on which this remedy is founded, we have lately observed an incident mentioned in the travels of JAMES BACKHOUSE, an eminent English naturalist and missionary, in the Mauritius and South Africa. In passing through the forests, his hat came in contact with the naked combs of a large, ochre-colored wasp, and one of them avenged himself by stinging him in the finger. "The burning pain subsided in a few minutes, on pressing out the poison, and sucking the part affected. The poison was *distinguishably acid*."

Bread from Grown Wheat.

Having read a number of recipes on bread-making, from grown wheat, let me give you my experience, and I may venture to say that my bread is as white and light as is made by any person.

I use neither alum nor whiskey, nor do I kiln-dry or scald my flour. I use nothing to make it rise but hop-yeast cakes, (or turnpikes, as they are called,) generally about one to two loaves of bread. Beat the cakes up with warm water until it is about as thin as gruel; mix your flour and water together in another pail until it forms a thin batter; then pour in your yeast cakes, and beat thoroughly together; set it away now until it rises, after which pour it into your kneading trough and work it with flour until it is as hard and stiff as you can get it. Form your loaves now, and set them near your stove to rise until they become perfectly light; then bake in a hot oven for about three-quarters of an hour; take them out, and the next morning you will find that you have as good bread as you wish to eat. W. F. SANDS.

Apple Sauce.

Apple sauce is an article of daily winter consumption with us, and we have the best I ever tasted—far superior to the old fashioned boiled cider apple sauce. We make it thus: Pare, quarter and core nice sweet apples; dry them on a rack made of sacking, suspended over the kitchen stove. When dry, wash them and stew them in new cider; when done, the cider will be sufficiently boiled to keep until warm weather. A few quinces improve the sauce. If there is danger that the cider will "work" before you get time to use it, just scald it and it will keep a few days longer. E. E. *Cedar Hill, Vt.*

Storing Potatoes.

EDS. CO. GENT.—For several years we have found the following to be effectual in preserving potatoes from decay, throughout the entire winter; and, so far from injuring them for table use, it makes them more palatable:

Put them in the cellar as dry as possible, and before putting them in the bin, sprinkle the bottom well with slacked lime, and give the potatoes a slight sprinkling as they are deposited. Care should be taken, not to use enough to generate heat sufficient to cause them to vegetate. A. J. C. *Charlton, Oct.* 10.

Inquiries and Answers.

PARSNIPS FOR MILCH COWS.—Will you inform me through the columns of the Country Gentleman, respecting the qualities of parsnips as feed for dairy cows through the winter. I have a quantity, and would like to know if you think them good feed for milking cows. THOMAS JINKS. *Lexington, Ky.*

Parsnips are very highly esteemed as food for milch cows, as well as for pigs and poultry, in the Island of Jersey, where they are extensively grown for this purpose. We quote from the Cyclopedia of Agriculture: "When parsnips are given to milk cows with a little hay, in the winter season, the butter is found to be of as fine a color and excellent flavor as when the animals are feeding in the best pastures. As parsnips contain 6 per cent. more mucilage than carrots, the difference may be sufficient to account for the superior fattening, as well as butter-making quality of the parsnip. Don observes, that "in the fattening of cattle the parsnip is found equal, if not superior to the carrot, performing the business with as much expedition, and affording meat of exquisite flavor, and of a highly juicy quality; the animals eat it with much greediness. The parsnips are given in the proportion of about 30 lbs. weight, morning, noon, and night; the large ones being split into three or four pieces, and a little hay supplied in the intervals of these periods. The result of experiment has shown, that not only in neat cattle, but in the fattening of hogs and poultry, the animals become fat much sooner, and are more healthy than when fed with any other root or vegetable; and that, besides, the meat is more sweet and delicious."

SOUTH-DOWNS.—A subscriber in Washington Co., wishes to know where he can get South-Down sheep nearest to Whitehall. Those having them would do well to advertise. A reference to our notices of the various State and County Fairs, will show where good sheep, of this or other breeds, can be obtained.

SHEPHERD DOGS.—Where can shepherd dogs be found for sale, and what is the price each, or pair? B. F. BUSH. *Shiawassse, Mich.*

THE WIRE WORM.—Can you, or any of your corresdents, inform me how to destroy the wire worm. They have made sad havoc in my strawberry beds this summer; if a remedy cannot be found it will be useless to replant, as the ground is literally alive with them. JAMES MCKAIN. *West Manchester, Alleghany Co., Pa.*

FOOD FOR FOWLS DURING WINTER.—Can you inform me through the COUNTRY GENTLEMAN, what would be the most profitable food for fowls during the winter season. Are you of opinion that small potatoes (boiled) given warm, and occasionally oats, would be profitable food. As I am an *amateur* in the business, if you will give me the benefit of your advice you will confer a favor. W. R. H.

Fowls must have a variety of food. Boiled potatoes mashed up with corn and oat meal, and fed warm, make a healthy and nutritious food. Unground oats, especially poor, light oats, are almost worthless as food for all kinds of poultry except geese. Fowls will eat them only when they can get nothing else, at least this is our experience. Buckwheat this year is a cheap food for fowls, and may be fed to them without grinding. If you live in the city, buckwheat and corn, with a few scraps of meat, cabbage, &c., will be your cheapest food, unless you can get light or damaged wheat or "screenings" from the mills or farmers.

REMITTANCES.—*J. A. M.*—Money may be sent us by mail at our risk, but where the amount is much, it would be well to have the letter containing it "Registered" at the office from which it is sent.

MANAGEMENT OF COLTS, &c.—Can any of your subscribers give me information in regard to the raising of colts, breaking, &c. I have read through Youatt on the Horse, but I need something more practical. When can he be haltered? which is best a rope or leather halter, &c. Had the colts better be fastened to a tree or sapling and for how long? J. M. E. VALK. *Meadow Bluff, Va.*

CALLUS FROM A KICK.—I have a valuable horse that has a callus on his leg caused by a kick from another horse. If you, or some of your correspondents, will inform me through the Country Gentleman, what will remove it, you will confer a favor on a subscriber. J. M. C.

SWAMP MUD.—Will you be kind enough to inform me if rich swamp mud, put up in heaps this fall, would answer as a manure for corn next spring, on a gravelly soil, and also how long its effects would last as nourishment for the following grain crops W. J. N. *St. Martins, C. E.*

Rich swamp mud, ameliorated by the frosts of winter, would be an excellent manure for corn or any other crop, but especially for turnips, ruta bagas, &c. We cannot tell how long it would last. It depends on the nature of the mud, of which we have no means of judging. It would, probably, last *longer* than barn-yard manure. If it was mixed in a compost heap with horse manure, or any other rapidly fermenting substance, it would be much improved. Where swamp mud or muck is easily obtained, it should be freely used about the barn-yard, manure cellar, &c. This is the best way to use it. It absorbs much fertilizing matter which would otherwise run to waste, while the elements locked up in the muck itself are rendered available by fermentation, &c. Will our readers give us their experience in the use of muck, &c.

ENGLISH AG. PAPERS—*A Subscriber.*—The *Mark Lane Eupress* is a good English Agricultural and Stock paper, published weekly at 246 Strand, London. Price, including two cents per week English postage, which must be prepaid, $8.50. The *Farmer's Magazine*, a monthly of 144 pages, with one or more beautiful steel engravings of stock, contains most of the agricultural matter of the *Mark Lane Express* with some additional articles. It would probably suit you better than the *Mark Lane Express* It is published at the same office; price $7.50 per annum. The *North British Agriculturist* is an excellent weekly agricultural paper, published at 377 High Street, Edinburgh; price and postage, $6,50. The *Irish Farmer's Gazette* is a spirited weekly, published at 23 Bachelor's Walk, Dublin. Price and postage, $6. You can obtain any of these papers by addressing as above.

MANURE DRILL.—Will you inform me who makes or where I can purchase a garden drill, that will sow concentrated manures in advance of the seed and about an inch deeper? If you could you would confer a great favor. H. S. COON.

Manure drills are common in England and would be quite useful here. We have frequently urged our ingenious manufacturers to direct their thoughts this way, and get up a cheap and simple machine that would sow manure and seed at the same time in drills. We believe, however, there are none made at present in this country. If there are we should be glad to hear from the manufacturers.

FRENCH CHESTNUTS.—In reading the Cultivator, I noticed an inquiry whether French Chestnuts would grow in Washington. I think they certainly would, for the trees have grown finely here on Long Island; but the season was not long enough for the fruit to mature. CHAS. A. CARRAVELLO. *Jamaica, N. Y.*

ARTIFICIAL MANURE FOR CORN AND POTATOES—What fertilizer would you recommend in place of stable manure, for an acre lot I design to plant in corn and potatoes next spring? It is a lime stone soil, pretty well worn. What quantity and how to be applied? E. M. M. C. *New Castle, Lawrence Co., Pa. Nov.*

The cheapest artificial manure you can use on corn

and potatoes is Peruvian guano. Sow it broadcast on the land, and harrow it in as early in the spring as possible. From 200 to 400 lbs. per acre is the proper quantity. Mix nothing with it, except it be muck which renders it less unpleasant to sow.

COTSWOLD SHEEP.—*R. B. Hodson, Spiceland, Ind.* The New Oxford sheep or more properly the Cotswold, can be obtained of J. W. WARE, Berryville, Va. Mr. STONE of Guelph, C. W., has also recently imported some superior sheep of this breed. Mr. MILLER of Markham, and many other gentlemen in Canada West have Cotswold sheep for sale.

It is difficult to say "which is the best breed of swine." No breed is best under all circumstances. In the neighborhood of large cities, where fresh pork is in demand, the Essex or Middlesex is perhaps the most profitable. If a medium sized breed is required, the Suffolk or Berkshire has no superior. If very large hogs are required, the Leicester and Yorkshire are the favorites

THE WILD LANDS OF LONG ISLAND.—Do you or any of your readers know any thing of the wild land of Long Island—whether it is worth buying for a farm or not, and what the price is per acre? If any of your readers can give me the necessary information I should be much obliged. S. A. LAWTON. *Pittstown, N. Y.*

Like our correspondent we should be glad to know the truth in regard to these lands. There has been for some years a great deal said about them in the New-York papers, and if we might credit half the stories told, we should conclude that all the farmers in the neighborhood were quite ignorant of their business, and lacking in ordinary energy and common sense. We shall wait for more satisfactory evidence of the agricultural value of these lands than any we have yet seen before we come to such a conclusion. Still, considering that these lands are within two hour's ride of the great Metropolis of the New World, it is quite probable that, by the aid of good tillage, and the use of artificial fertilizers, they may be made very productive, without sinking more money on them than would buy a farm of naturally rich land. To make poor land rich, always was and always will be an expensive process; but it has frequently been done with great profit on as poor land as that under consideration, and under much less favorable circumstances.

BOTANY.—Will you inform me which is the cheapest and best work on Botany, and where it can be had. W. F. *Libertyville, Ill.*

Gray's Botanical Text Book, for an elementary treatise; and Gray's Manual of Botany of the Northern States, for a description of plants. They are published at Boston, and may be ordered through the principal booksellers.

NORTHERN MUSCADINE GRAPE.—I see in your paper an advertisement of this grape, said to have been raised by the Society of Shakers. Do you know anything of its merits? W. F.

We have carefully examined the "Northern Muscadine grape," from specimens sent us, and received in good order. It is not essentially different from the best varieties or modifications of the early Fox Grape, and may prove valuable so far north that the Isabella will not ripen, and for those who like the peculiar musky flavor of the Fox grape.

PLANTING LOCUST SEED.—In a recent number of your valuable journal, you recommend Honey Locust as capable of making a strong hedge with little care. I have adopted your suggestion, and planted a nursery also to supply plants for the breaks. There appears to be a difference of opinion regarding the mode of treating these seeds, and I have to appeal to you or your corresspondents for information. I was told by a gardener of some note, to scald both Yellow and Honey locust seeds, and to plant them in the fall; since then I have been told that they probably will perish during the winter. The soil is a sandy loam. Information on this subject will probably interest many. D. A. *Washington City, D. C.*

The seeds of the Yellow Locust need scalding to cause them to germinate. They remain in the water some hours after it has cooled, and the swollen seed only will grow. The process must be repeated on the unswollen ones. If planted in autumn, these swollen seeds would be liable to rot. Honey Locust seed do not need scalding, and should be planted in spring.

BLACK APPLE, &c.—Please inform me through *The Cultivator*, where I can obtain the Black Apple, the Sweet Quince, and the Black Rose, and oblige ELI V. CLARK. *West Andover, O.*

The Black Apple, and several varieties of black roses may be procured at the larger and more extensive nurseries. We do not know a sweet quince, although the Portugal is less astringent than the common varieties.

APPLE AND PEACH.—You will oblige me by giving descriptions of the Pine Apple Russet Apple, and the Lemon Freestone Peach, *with the glands of the leaves.* I have never seen a description of these fruits in books or catalogues. J. WATERS. *Lanesville, Conn.*

We know of no peach by the name of Lemon Freestone. The *Pine Apple Russet*, is a European variety, and our correspondent will find Lindley's description copied into Downing's Fruit and Fruit Trees, p. 93.

Wood for Underdrains.

The remarks of S. E. Todd, of Tompkins county, in a late number, on the perishable character of wood for channels of underdrains, contain a great deal of truth. We may perhaps be allowed to add in corroboration, that we have often used wood, not in forming the channel, but in covering a completed stone filling where danger was to be apprehended from quick-sand, and we have discovered that only the most durable wood will remain long undecayed in such a position. It is true that wood buried two or three feet under the surface of the earth, and completely excluded from air by close packing, will last a very long time; but in the case of underdrains, it must not be forgotten that air is admitted in the channel left for the water. This air is both damp and confined—in the very worst condition for the continuance of soundness in the wood in contact. Builders are familiar with the fact that a tight floor, laid a foot or two from the ground, with an air-tight underpinning, decays in a very few years, from want of ventilation.

We have taken up portions of ditches, laid with slabs on a previously completed channel and bed of stone, as above mentioned, after they had remained only four or five years,—and with the exception of the most durable kinds of wood, all the lower part of the wood, next to the stone, was completely decayed. The upper portion, in contact with the compact earth, was quite sound. There being a stone channel besides, the decay of the wood in this instance is not of much detriment.

Brush drains have often lasted many years. Here the brush forms a multitude of small seams through which the water soaks away, and after decay these remain—such drains being only adapted to small quantities of water.

Tile is the best material; and a constantly increasing and re-acting demand and supply will gradually introduce its manufacture throughout the country.

INSPECTION OF GUANO.—We perceive that the Union Ag. Society of Virginia and North Carolina, is about to petition the General Assembly of Virginia to repeal the law for the inspection of guano. What is the trouble?

Experiments with Potatoes.

MR. TUCKER—Seeing an account of experiments with potatoes in some of the last issues of the Country Gentleman, I am induced to give you one or two that have come within my knowledge.

First—Wm. R. Tanner, Esq., of Medusa, in this county, whom I supplied with a peck of seed last spring, informed me a few days since, that the yield was 16½ bushels. He did not state the method of cultivation.

Second—J. M. Hallock of the same place, who also obtained a peck of seed from me, informed in September, that he had dug them, and the yield was 14½ bushels. His were planted on a gravelly soil, which a few years since received a good supply of muck or creek mud; the potatoes were cut, and one piece put in a hill, with a handful of compost, consisting mostly of hen manure; were never plowed, but the weeds were kept down by careful hoeing, as we do carrots or turnips. They were dug about the last of August, and suffered to lie on the ground a considerable time, and then put in barrels and boxes in his cellar. When I saw them, some time in September, they were the finest lot I ever saw; some three bushels would average from 7½ to 9½ inches in length. Some few went up to 10¼ inches. There was about three-fourths of a bushel of small sized ones, which he considered too small for cooking, and which he had selected for seed. Mr. H. informed me that he had a curiosity from the extraordinary yield, to count the tubers in a hill. The result was *eighty-two* in *one* hill. From *his early digging*, not one has been affected by the rot, which is so prevalent in this vicinity.

The next one (and I will make it the last,) is contained in a letter from the town of Fairview, Jones Co., Iowa, dated Sept. 15, 1855, from S. G. Matson, Esq. The extract is as follows:

"I received yours of March 20th; also the tin box containing the potatoes, for all of which you have my sincere thanks. I will comply with your lady's request to let you know what success I have had in cultivating this fine vegetable. I planted them late and under unfavorable circumstances, they being very dry and shriveled up. They were planted by the side of other potatoes, on ground that had been very highly manured with leached ashes—the same ground that two years since raised 400 bushels to the acre; but this year on account of the drouth, I did not get one-fourth as much. The Strawberry potatoes received *no more* attention than the others, and had only one shriveled-up eye in a place, while the other kind was planted with a plenty of good seed, and yet the Strawberry potatoes yielded more than twice as much as the other variety right by its side. I had *one bushel and a half* from the 12 ounces, box and all, that you sent by mail. They are beautiful potatoes, but not as large as you raise them, none of them measuring more than 7 or 8 inches in length."

The remainder of the letter is highly interesting, as also many more that I have already received. Let who beat these that can. G. W. DURANT. *Rensselaerville, N. Y.*

Potatoes Planted in Wood Ashes.

MESSRS. EDS.—About the middle of April, plant them in rows about two feet apart, and about two feet apart in each row—plant the sets whole, putting about two handsful of wood ashes with each set. Hoe them deep and well. The best and largest yield I have seen this season, were grown in this way—soil generally light and sandy. Mr. W. Shaw's averaged about 28 to each set, some of the potatoes weighing over 16 ounces. P. SIDEBOTHAM.

The Register of Rural Affairs.

Our offer of five copies of the ANNUAL REGISTER for 1856, post-paid, for One Dollar, has called out far more orders of this kind than we had reason to anticipate. Any one can sell *four* and thus obtain his own copy for nothing, or it may be found a still easier method, by the benevolently inclined, to *give away* what they do not wish to reserve for themselves and children.

A letter occasionally comes, odering the REGISTER for 1855, "*if we have it.*" We wish to inform all interested that we *have* it, and are constantly selling it, and that the demand for it, promises to be, according to its deserts, a permanent one, and that we offer it precisely on the same terms as that for 1856, while both together may be ordered, in any proportion, at the price of either by itself.

☞ Please specify in ordering which is desired the REGISTER for 1855, *or* 1856?

☞ We give below one or two extracts from notices of Number Two, preceded by the unrequested and impartial opinions of a distinguished horticulturist in western New-York, himself both a large cultivator and successful author. He writes:

"Your "Register," this year possesses more intrinsic excellence, and is arranged and executed with more taste, than anything of the kind, I have ever seen *in any country.*"

The Homestead, the new Connecticut Agricultural weekly, says:

"It contains, aside from the Almanac proper, more than 100 pages of interesting and useful agricultural and horticultural matter, very fully and tastefully illustrated. The amount of valuable matter condensed in this little volume is remarkable. The article upon country houses, barns, carriage houses, stables, poultry houses, etc, is particularly valuable. We commend it cordially to all our readers."

The Editor of the *Boston Cultivator* speaks of it as follows:

"This little work comprises a great amount of useful information. The author is well known as an intelligent horticulturist, and at the same time well versed in the science and practice of rural affairs, generally. The plans of buildings furnish many good suggestions, and the illustrations and descriptcons of fruits are accurate and reliable. The work is very neatly executed."

The *Buffalo Courier* remarks in the course of quite an extended notice:

"The articles are in the main from the practiced pen of J. J. THOMAS, Macedon, whose name is familiar as "household words" to the farmers of the state, and a sufficient guarantee for the character of the work. Issuing, too, from the Publication office of LUTHER TUCKER & SON, no one need be assured that the Register is a publication worthy of a place in the house of every farmer in the land. It is the intention of the publishers to continue this hand-book of rural affairs from year to year, and the series will contain in a compact form more that is valuable to the country resident than any other similar work or agricultural journal before the public."

The above will suffice for the present. We desire to acknowledge our indebtedness for many other highly flattering notices, for which we cannot now make room.

A Peculiarity of the past Summer, and a Peculiar Work for this Winter.

The past summer has been an uncommonly wet one. One of the results or consequences of this peculiar wetness has been a more than usual growth of grass and herbage of all kinds. In some spots the growth of grass was so luxuriant, and the soil so constantly saturated with water, that there came upon the surface of the ground a covering of white mold. And on all kinds of soil the growth was so abundant as to make pastures watery and flashy.

Horses allowed to feed in pastures were very generally attacked with slavering early in the summer. So excessive was this slavering that many shut up their horses in the stable and fed them with hay. Those horses which were allowed to stay long at pasture got very thin in flesh, and greatly reduced in vigor and ability to endure fatigue.

Not only horses, but also cows, cattle and sheep were here and there affected with this slavering and its consequences. Cows got poor, did not do well, and failed to give their usual quantity of milk. Sheep we have seen slavering this year, which is a sight we never saw before. And almost everywhere we have heard complaints that sheep did not do well though having a wide range of pasture. Having recently butchered a few sheep we were to some extent surprised at the small amount of tallow. The mutton was in fair order but there was a very small quantity of tallow. On inquiry of others we found that they had met with a similar state of matters in their flocks.

Now this state of things so far as it prevails, and it prevails very extensively, calls for a more than usual carefulness to provide good feed and good shelter for our stock during the coming winter. Sheep and other stock are not so fat, nor in as good condition as usual, at the commencement of winter. Good managers will, therefore, see that their animals do not get down poor by going too long without feeding and housing, or without a due provision of shelter. In addition to all the arguments in force at *all* times in favor of providing abundance of food and shelter for animals during the winter, there is an an additional one this year arising from the want of good condition, which has been the consequence of flashy and innutritious pastures. Poor managers will be likely to let their sheep and other stock be out as long as they can get even bare picking, and the consequence of this will probably be the loss of some of their stock during the winter, or of ewes and lambs in the spring.

Some farmers are beginning to find that the hay gathered this year, not only clover hay, but even that which contains only a small admixture of clover, produces slavering in their horses about as much as when in the green state in summer. If almost all hay of this kind acts in this way, not only on horses, but also on cattle, cows and sheep, it will be a difficult matter to carry them safely and comfortably through the winter. All means of cure, suggested by Dr. Dadd in his 'Horse-Doctor,' have been tried in one case of a horse in vain. Even when the horse has hay but once a day, and cut straw with grain during the rest of the time, slavering is pretty abundantly produced. What are farmers and others having horses to do when they find their supply of hay for the winter, or at least a great share of it, produces this debilitating complaint? If any of the readers of this should *know* of any *effectual* means of preventing or curing slavering caused by the hay of this year, he will confer a great favor by making it public. Obs.

On Wintering Domestic Animals.

There is no great amount of labor to be done out of doors in this climate, during December. The most important labor of the farmer now, is the care of his domestic animals, to see that they be well sheltered from cold and wet, and properly fed and watered. The year's profit or loss, of the farmer depends greatly upon the manner in which he winters his stock. The milk of the ensuing season, the wool, and the ability for labor, all depend in a great measure upon the care the farmer gives his cattle, sheep and horses, during the winter. The Cultivator, some years since, most truly said—"If there is one truth respecting animals more deserving of remembrance than another, it is that the animal, entering the winter months in high condition, is already half wintered—that is, the care and food required to bring him out well and hearty in the spring will not be one half as much as will be required by the one that commences the winter spring-poor. A fat strong animal, will be warm and comfortable where a poor weak one can hardly live, and the hearty vigorous one will digest and assimilate food which the weak one would scarcely taste."

Regular hours for attending to all matters, is important, but in no department of the farmer's business is it more important than in milking cows, foddering or feeding, watering and carding stock. Cattle should be fed often, and but little at a time,—say four times in the twenty-four hours, will keep cattle in better condition and at less expense than to feed but twice a day, being careful never to give them so much at a time that they will leave their feed before it is all consumed.

Cattle thrive better when their dormitories are kept clean and freely littered with dry leaves or straw, being mindful not to forget the frequent use of the card and currycomb. Cattle, horses and sheep, should have salt where they can have access to it whenever they desire it. A gentleman informed me that some years since he lost many horses annually, but since he commenced to salt his horses three times a week, or feeding on salt hay, he has lost none.

Sprinkling hay with salt dissolved in water, or salting hay too freely, is injurious, as over salting diminishes the nutriment, and weakens and keeps the animals too loose; but when they have free access to use or not, they are not apt to take more than nature requires.

Cutting provender, corn stalks, straw or coarse hay, is a great saving. When cut, it is all eaten; there is no loss of material. A good milch cow will tell her milker a good story when well supplied with chopped corn stalks, or rye or oat straw, wet and well powdered with corn ground with the cob or wheat shorts or buckwheat bran, and a little powdered oil cake. My cows increased their milk and flesh and my sheep improved last winter, by Col. Jaque's mixture, which was two bushels of turnips cut fine, one bushel wheat bran, half a bushel powdered oil cake, with seven bushels cut hay, wet with ten gallons water—the mixture well stirred and intermixed, giving them as much as they would eat of it thrice a day, and once a day a feed of good English hay, with a tub of soft clean water to which they had access as often as they chose. S. *Plymouth, Ct.*

Notes for the Month.

REMOVAL.—C. M. SAXTON & Co., our Agents in New-York, desire to announce to the readers of the COUNTRY GENTLEMAN and THE CULTIVATOR, especially those who receive these journals through their hands, that after the 1st of December, they will be found in their new and eligible apartments at *No.* 140 *Fulton Street*, where they will continue to receive subscriptions and deliver to city subscribers as heretofore. They have also opened a Farmers' Reading Room, where will be kept on file for convenient reference, all the journals published in the United States, and the principal periodicals of Europe relating to agriculture and horticulture. They invite farmers generally to make this a place of unceremonious resort whenever they visit New-York; and they will be happy to furnish those at a distance with their catalogue of Agricultural Works on application.

CHEMICAL NONSENSE.—A recent writer in the *Ohio Farmer* exclaims:

Now, if cattle are kept on land destitute of lime, or its phospates, how are they to obtain material for bones from the food?

It is true that food destitute of phosphates cannot supply cattle with the necessary material to form bones. But then, *no such food is ever grown.* "Land destitute of lime, or its phosphates," will not produce a spear of grass or clover, or of any other plant used as food; so that it would be impossible to keep cattle on such land. We have no doubt, therefore, that however deficient the soil may be in phosphates, the Ohio cattle will continue to have quite as much *bone* in them as we eastern beef eaters require. Seriously, it is time such nonsense was expunged from our agricultural literature. A soil deficient in prosphates will produce a deficient crop; a soil rich in phosphates may produce a very large crop; but the *proportion* of phosphates would be the same in both crops.

MEXICAN POTATO.—We have received from I. W. BRIGGS, Esq., P. M. at West Macedon, Wayne Co., a lot of this potato. It is of a "lady-finger" form, with white skin, and attractive appearance. Mr. B. considers it excellent for all eating purposes, especially baking; and we have found his recommendation, as to its delicacy, which is perhaps its best quality, borne out on trial. It requires but little, and that careful cooking.

☞ Those in want of superior Short Horn Cattle, or Berkshire Pigs, are referred to the advertisements of S P. CHAPMAN, Esq., of Clockville, and Hon. WM. KELLY, of Rhinebeck. Also to that of Dr. WENDELL of this city.

THE OHIO CULTIVATOR.—This excellent agricultural paper has been purchased by Mr. S. D. HARRIS, who has had the office charge of the paper, and been associated with Mr. BATEHAM in its editorial management for the last five years. Mr. HARRIS is an able, practical writer, fearless in his exposure of the "scientific" humbugs so rife in the agricultural literature of the day, but a true, energetic friend to real progress in rural economy.

PLOWING BY STEAM.—That veteran inventor, OBED HUSSEY, to whom, we believe, the honor of having invented the first effective Reaping and Mowing Machine belongs, is still at work. He has constructed a Steam Plowing Machine, which was tried at the late Fair of the Maryland Agricultural Society. The machine steamed to the field, a distance of 2¼ miles. Arrived there, four large turf plows were attached to it, with which it moved off, throwing up furrows each about fourteen inches deep. The Baltimore *Commercial Advertiser* says "the work was well done, and it was the opinion of many farmers present, that it was admirably adapted to the breaking up of prairie land." The Society awarded Mr. HUSSEY, for steam plow, the highest premium and a diploma. We hope yet to see the day when the soil shall be pulverized and cleaned by steam.

THE VALLEY FARMER.—This paper, which has been published at Amherst, Mass., the past year, by our friend, Prof. NASH, has been merged in the *New-England Farmer*, published at Boston, and edited by Lieut. Gov. BROWN. We perceive by a statement in the last No. of the Valley Farmer, that the income has not at any time since its first establishment at Springfield, been sufficient to meet its expenses. It became necessary, therefore, to make some disposition of it, and we rejoice that its subscription has been united to a work so worthy the confidence of the farmers of our country, as that of the N. E. Farmer, and that its value is hereafter to be increased by the contributions of Prof. NASH.

The history of the *Valley Farmer*, as given by Prof. NASH, is similar to that of a dozen other agricultural journals which have been established within a few years past, and of some forty or fifty which have been started since our connection with the agricultural press. From the success which has attended some half a dozen of these papers, many persons seem to suppose that it is only necessary to start an agricultural journal, to secure at once, not only the means of living, but of acquiring wealth, and yet we may safely assert, that not one in ten of the agricultural journals which have been published in this country, have ever received an equivalent for the labor and money expended upon them. We think we could enumerate at least forty which have struggled, some for a longer and some for a shorter period, for an existence, but have finally died for want of support; and yet we see new efforts continually making, in spite of these admonitory lessons, to establish new journals, most of which, as certainly as those which have gone before them, will in the course of a year or two be numbered among the departed. We should be glad to see all these efforts succeed; but the fact is undeniable that there is little chance for success without some thousands of capital to invest, and a degree of industry and perseverance which is rarely brought to this kind of work.

SHEEP AND SWINE FOR NEW-BRUNSWICK.—We learn from the *Boston Cultivator*, that J. H. Reid, the Agent of the York County (N. B.,) Ag. Society, has purchased from L. G. Morris some of his superior South Down Ewes, and the yearling ram which took the first premium at the late Fair of the U. S. Ag. Society. He also purchased the imported Suffolk boar, "Lord Wenlock," and two sows of the same breed from Mr. MORRIS. He also purchased an imported Suffolk sow and two young sows from Messrs. JOSIAH and ISAAC STICKNEY of Boston. We congratulate the enterprising Society on the purchase of this stock—there is no better in this country or in England.

PREMIUMS TO AMERICANS AT THE PARIS EXHIBITION.—Three "Grand Medals of Honor," came to this country—one to Mr. M'CORMICK, Chicago, for his Reaper—one to J. A. PITTS, Buffalo, for Straw Cutter and Threshing Machine, and one to Mr. GOODYEAR, for his Indian Rubber inventions. Also eleven "first class medals"—one of which is to D. KING, Albany, for model of a river steamer. Of second class medals, 12 come to this country, and "honorable mention" is made of the articlee of about 20 other exhibitors.

VALUE OF LEAVES.—Payen and Boussingault give analyses of leaves from several different trees. Taking the average of all their analyses, leaves contain 1.13 per cent of nitrogen, together with a large amount of mineral and carbonaceous matter. Common barnyard dung, according to the same able chemists, contain

0.41 per cent. of nitrogen, and we may confidently assert that leaves are worth, therefore, three times as much as common barn-yard manure. Every good gardener makes them into a compost with weeds and other rubbish of the garden or orchard.

THE NEW-JERSEY FARMER.—We have received nos. 1 and 2 of this journal, published monthly at Freehold, at $1 a year. It is edited by ORRIN PHARO, and gives promise of being a valuable addition to our agricultural papers.

THE HORTICULTURIST.—Horticulturists will not fail to observe the prospectus for a new volume of this work now published at Philadelphia. We will forward the subscriptions of any of our friends who may desire it, with pleasure; and we have made such arrangements with the publisher, as will enable us to furnish those who wish both it and the COUNTRY GENTLEMAN, with the two works for $3. At this reduced club price for them, a large number will doubtless take the opportunity to subscribe.

THE YEAR-BOOK OF AGRICULTURE.—The favor with which the reading public has received for some years, the "Annual of Scientific Discovery," has induced its Editor, DAVID A. WELLS, to prepare a similar Annual of *Agricultural* Progress and Discovery, entitled "The Year-Book of Agriculture." The idea is a good one; such a work is greatly needed. The first volume for 1855—6, has just been issued. It contains 400 pages. We have first, a short sketch of the life of the late A. J. DOWNING, with a portrait, engraved on steel, and given by us in the November number of the *Horticulturist* for 1852. Next we have a "Review by the Editor, of the Progress and Prospects of Agriculture," occupying 14 pages. It was evidently written in great haste, and it seems to us that Mr. WELLS has hardly done himself or his subject justice. He has rapidly passed over the vast field of American and European Agriculture, and noted down, here and there, some prominent object of Progress, but the hidden springs of agricultural improvement have been entirely overlooked. If anything has been done, or is now doing, to throw light on the *principles* of agriculture, it has been unobserved by the reviewer. Many careful experiments on feeding cattle, sheep and swine, have recently been made in Europe—many experiments with various artificial fertilizers, but nothing is said about them. We are now expending from ten to fifteen millions of dollars per annum in guano and other manures,—in many parts of the country it is the grand feature of our agricultural progress; but there is no allusion to the subject. Speaking of the Experimental Farm at Petersburg, Va., the reviewer says: "Thirty acres were seeded with various kinds of oats, and treated with different manures, and in various quantities. The results will be found in the present volume, department of Agricultural Chemistry." On turning to the place indicated, we found that the editor had helped himself to our extracts (he is quite welcome to them,) from these experiments, giving only such as we gave, with this difference, that whereas we informed the readers of the Country Gentleman, that the "Chilian guano," of which 183 lbs. produced only 25 bushels of oats per acre, while on land adjoining 100 lbs. of Peruvian guano produced 52 bushels per acre, was a compound of sugar scum, salt, plaster, &c. The readers of the *Year-Book of Agriculture* are left to suppose it to be genuine Chilian guano!

Following this review of the progress of agriculture, we have 114 pages devoted to "Agricultural Mechanics and Rural Economy." They are occupied principally with articles taken from our current agricultural literature selected generally with good judgment. The next 84 pages are devoted to "Agricultural Chemistry and Zoology," followed by 10 pages on "Meteorology," 60 pages on "Agricultural Botany," 50 pages on "Horticulture," and 34 on "Agricultural Zoology." The whole consisting of nothing more nor less than articles scissored from our agricultural papers, with here and there one from a foreign journal. Except the Review there is scarcely a page of original matter in the book.

We make these remarks with no unkind feelings towards the author. We can understand the difficulties under which he labored in getting out his first volume. But though the book is perhaps all, or more than we should expect under the circumstances, yet Truth compels us to say it falls far short of what a work of this kind ought to be, and of what we have no doubt Mr. WELLS will make the succeeding volumes.

MEXICAN AND PERUVIAN GUANO.—The Rev. WM. CLIFT gives the result of an experiment made by him in Stonington, Ct., with Mexican and Peruvian guano for wheat. The Mexican he says was "no where," while the Peruvian had a very beneficial effect—just what we should expect.

MARYLAND STATE AG SOCIETY.—At the annual meeting of this Society, held during its late State Fair, JAMES T. EARLE, Esq, was unanimously re-elected President; JAS. M'HENRY, Cor. and SAMUEL SANDS, Rec. SEC'Y; ROBERT BOWIE, Treas, with a Vice President and Curator for each county in the state.

DIOSCOREA BATATAS.—Mr. DINGWALL of this city has shown us a root of this new Chinese potato, raised by him the past season. The plant was a very small one, and was not planted till the 16th of June. We saw it while growing; the stem was some six feet high, and twisted round a pole like a Lima bean. The tubers do not differ materially in appearance from a dahlia; their flesh is white, and somewhat more brittle than a potato, but exceedingly mucilaginous, a fresh cut piece adhering with considerable force to the fingers. In its uncooked state it is not unpleasant to the taste, but is almost destitute of flavor. The plant grown by Mr. D. had three tubers adhering to the stem, which would weigh perhaps five or six ounces.

SOUTH DOWN SHEEP FOR THE WEST.—Col LEWIS G. MORRIS has recently sent by express, six of his celebrated South Down ewes to Hon JOHN WENTWORTH of Chicago, for the farm of the Illinois Breeding Association at Summit, Cook Co., where great attention is being paid to the breeding of thorough-bred French Merinos and South Downs. Three of the ewes were imported by Col. M. from the flock of the celebrated Jonas Webb of England, and three were bred from his imported stock, and all were in lamb by his buck "Young York," that has taken the premium at the State Fair in New-York and at the recent National Fair in Boston.

Mr. THOMAS GOULD of Aurora, has just added to his herd, two fine two-year-old Short-Horn heifers, Fillpail Lass 3d and Omen, purchased of Mr. Thorne of Thorndale, Washington Hollow. They are to be put to Mr. T.'s newly imported bulls—one to Second Grand Duke and the other to Neptune. Mr. Gould is selling off his Devons, as he proposes to keep only Short-Horns hereafter. [See his advertisement.]

LARGE STEERS.—A pair of Durham Steers, raised by Mr. A. M. Winslow of Putney, Vt., which received the first prize at the Windsor Co. Fair, and at the Vermont State Fair, were exhibited at the United States Fair, at Boston, where they also received a prize of $25. They were two years old last spring, and weighed 3380 lbs. Col. WILLIS of Pittsfield, Mass., purchased Mr. Winslow's steers at $250, and has since bought another pair of yearlings of Mr. Winslow at $150, which are considered more promising than the others.

J. I. J., Cincinnati.—Your question will be answered soon, in this paper.

CANADA SHORT-HORNS.—Breeders of Short-horns are referred to the advertisement of Mr. WADE of Cobourg, C. W., in this paper. Mr. W. we believe, is an extensive importer of short-horns, and our breeders may find it for their interest to visit his herd. His imported bull "Sir Charles Napier," is from one of the best breeders in England, and was got by a bull of unequalled success as a winner of high prizes.

Excelsior Ag. Works, Ware House and Seed Store,

Old stand, 369 and 371 Broadway, Albany, N. Y.

RICHARD H. PEASE, PROPRIETOR.

THE Excelsior Horse Power, Thresher and Separator.
do do Saw Mill.
do do Cider Mill, Improved, Kraus's Patent,
do do Cross Cut Saw arrangements.
do do Corn and Cob Grinder,

with a very full and complete assortment of Hay Cutters, Corn Shellers, Corn Stalk Cutters, Sausage Meat Cutters and Stuffers, and every other implement a farmer needs. The Seed Department is complete, and is attended by a man experienced in the business for the last seven years. For further information apply as above.

☞ A Descriptive Pamphlet sent by mail gratis, if desired.

Dec. 20—w4tm1t

Chicago Agricultural Warehouse and Seed Store.

Warehouse and Sale Room 45 Franklin Street, between John and Randolph Streets.

THE subscriber, formerly connected with the "*Albany Agricultural Works, Albany, N. Y.*," has opened a Depot in Chicago, where may be found at all times a complete assortment of

FARM MACHINERY AND IMPLEMENTS,

of most approved kinds—also a full stock of

GARDEN AND FIELD SEEDS.

Full catalogues furnished gratis on application.

Dec. 13—w4tm2t HENRY D. EMERY.

AGRICULTURAL DEPOT
AND
PRODUCE COMMISSION WAREHOUSE,
No. 100 MURRAY STREET,

Between West and Washington Streets, New-York.

THE subscriber having opened an establishment at the above named locality, for the transaction of General Agricultural Business, respectfully invites the attention of Farmers and others to the advantages proposed. He will attend to the sale of

Hay, Grain, or any other kind of Farm Produce,

that may be consigned to him by Railroad, Steamboat, &c., from any portion of the country. His charges for commissions, &c., will be moderate; and prompt returns will be made, in such form as his correspondents may direct; and he trusts that the convenience of a General Depot for the Sale of Produce, affording ample time for judicious sales and preventing any hasty disposal of property, may procure for him the Consignments of Agriculturists.

Connected with the above branch of business, it is the intention of the undersigned to keep on hand a complete assortment of

Agricultural Implements and Farming Utensils,

Of all kinds and of the most approved manufacture; also a supply of the best kinds of

Field and Garden Seeds,

Both American and Foreign; also first quality of

Peruvian Guano, Phosphate of Lime and other Portable Manures,

All of which will be sold on the most reasonable terms, and carefully packed and forwarded to any part of the country.

HENRY F. DIBBLEE.

REFERENCES.

H. F VAIL, Esq., Cashier Bank of Commerce in New York.
ROBERT STRONG, Esq., Cashier City Bank.
JAS. T. SOUTTER, Esq., Prest. Bank of the Republic.
WILLIAM S. TISDALE, Esq.
G. B. LAMAR, Esq.
Messrs. HENRY SHELDEN, LAWSON & Co
VANDUSEN & JAGGER.
H. E. DIBBLEE & Co.
DIBBLEE, WORK & MOORE. Dec. 6—w4tm1t*

SHORT HORN BULLS.

THE subscriber offers for sale at moderate prices, the following named Short-Horn Bulls. They are all superior animals; for their pedigrees reference may be had to the Second Volume of the American Herd Book:

DEFIANCE—Red with white marks—calved May 8th, 1854.
BARRISTER—Red with white marks—calved May 3d, 1854.
LENOX—Roan and white—calved May 4th, 1854.

WILLIAM KELLY.

Ellerslie, near Rhinebeck, Dutchess County, N. Y.

Nov. 22—w4tm2t.

Devons, Suffolks and Rabbits.

I NOW have for sale three Devon Bulls:—"Holkham," 3 years old,—Fordham, 1 year old,—Detention, 2 months old

Three Devon Heifers:—"Venus," 5 years old,—Cherry, 3 years old,—"Fanny Fern," 8 months old.

The Pedigrees of which are recorded in Davy's English Herd Book.

Also two SUFFOLK BOARS and four Suffolk Sows, five months old.

And ten pairs Madagascar or LOP-EARED RABBITS, nearly full-grown. THOS. GOULD.

Dec. 13—w3tm1t Aurora, Cayuga Co., N. Y.

SHORT HORN BULLS.

THE subscriber offers for sale the following named Short-Horn Bulls. They are all superior animals, have fashionable, as well as very desirable pedigrees, and are nearly all registered in full in the 2nd vol. of the American Herd Book.

HAMPTON—560 A. H. B.—Roan, calved Sept. 22d, 1854. Got by the celebrated prize Bates Bull Meteor, (11811) 102, out of Matchless by Ringgold 908—Ringlet by imported Bates Bull Duke of Wellington (3654,) &c, &c. See No. 560 A. H. B. Price $100.

2ND METEOR—956 A. H. B.—White, calved Oct. 8th, 1854. Got by Bates Bull Meteor (11811) out of imported Lady Liverpool by Mr. Bates' 3d Duke of York (10166)—Lilly by 2nd Duke of Oxford (9066)—Harmless by Cleveland Lad (3407) &c, &c. See No. 956 A. H. B Price $150

DERBY, 414—Red and white, calved Nov. 27th, 1854, got by imported Bates Bull LORD DUCIE (13,181) 662, out of Lady Bird by Bates Bull Eclipse, 466—Fillpail by Ajax (2944,) &c &c.—see No. 414 A. H. B. Price, $125.

EARL CARLYLE—Roan, calved Sept. 3d, 1855, got by imported Bates Bull Lord Ducie (13,181) 662 out of Duchess of Exeter by imported Princess Bull Duke of Exeter (10152) &c. &c.—see A. H. B., 2d vol., page 358. Price, $100.

DUKE OF CLARENCE—Red roan, calved Sept 7, 1855, got by imported Bates Bull Lord Ducie (13,181) 662, out of Daisy 7th, by Duke 442—Daisy 4th by celebrated Wildame Bull Prince 841, &c &c.—see A. H. B., page 347 Price, $100.

The above prices are at least 100 per cent. less than animals of *equal value* can be purchased for otherwheres in this country.

P. S If desired, I will spare a few Females at favorable prices. Address DR. HERMAN WENDELL,

Nov. 29—w6tm2t Albany, N. Y.

EMERY'S
Patent Portable Horse Powers,

THRESHERS, Separaters, Saw Mills, Corn Shellers, Feed Cutters, &c., for sale at 45 Franklin Street, Chicago, Ill. HENRY D. EMERY.

Dec. 13—w4tm2t

Little Giant Corn and Cob Mill.

THIS is doubtless one of the most important inventions of modern times, for the farmer and stock grower. Its simplicity and durability recommend it to every one desiring such a machine. It occupies but little space, and is easily operated by any farm hand Prices from $40 to $65 For sale at the Chicago Agricultural Warehouse and Seed Store, 45 Franklin Street, Chicago, Ill.

Dec. 13—w4tm2t HENRY D. EMERY.

SHEEP BOOK.

THE Breeds, Management, Structure and Diseases of the Sheep, with Illustrative Engravings and an Appendix. By Henry J. Canfield of Ohio—for sale at the office of this paper—price $1 00.

THE SATURDAY EVENING POST.

ESTABLISHED AUGUST 4, 1821.

Weekly Edition between 80,000 and 90,000.

IN ISSUING their Prospectus for 1856, the proprietors of the Post take it for granted, that the public are already tolerably well acquainted with the character of a paper that has grown strong during the storms and sunshine of THIRTY-FOUR YEARS. Their object always has been, as it remains to be, to publish a weekly paper for the family circle, which shall not only amuse, but also instruct and improve, those who may read it. To accomplish this object, the best articles are selected or condensed from foreign and domestic periodicals, and original articles of an instructive character procured, when possible.

Letters from Foreign Lands; the most interesting portions of the Weekly News of the World; Sketches of Life, Adventure and Character; Selected and Original Articles upon Agriculture; Account of the Product and Stock Markets; and a Bank Note List are included among the solid information to be constantly found in the Post.

But the mind requires a wider range—it has faculties which delight in the humorous and lively, the imaginative and poetical. These faculties also must have their appropriate food, else they become enfeebled, and, as a consequence the intellect becomes narrow and one-sided, and is not able to take an enlarged and generous view of human nature and its destiny. To satisfy these heaven-implanted cravings of our mental being, we devote a fair proportion of the Post to FICTION, POETRY and HUMOR.

Among our contributors to the first two of the above Departments, are several of the most gifted writers in the land. We also draw freely for Fiction and Poetry upon the best periodicals in this country and Great Britain. We design commencing a New Story by MRS. SOUTHWORTH, author of "The Deserted Wife," "Miriam," &c., in our first paper of January next.

ENGRAVINGS, illustrative of important places and actions, of Agricultural and other new Inventions, with others of a Humorous, though refined character, are also freely given.

The Postage on the Post to any part of the United States, paid quarterly or yearly in advance, at the office where it is received, is 26 cents a year.

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No. 66 South Third Street, Philadelphia.

☞ *SAMPLE NUMBERS sent gratis to any one, when requested.*

☞ We annex a few Notices of the POST from its Exchanges:—

This is one of the few large papers filled with life and and thought, instead of lumbering trash. Its management is marked by liberality, courtesy, ability, and tact. It employs the best literary talent, and spares no pains or expense. As a family paper, one of literary and general intelligence, we cordially commend it.—*Cayuga Chief, Auburn, N. Y.*

In another column is an advertisement of the Saturday Evening Post. Our readers may rely upon it, that Deacon and Peterson will be as good as their word. So far as we can judge by years of observation, these publishers do rather more than they promise; and their paper is edited with very marked ability. It is singularly free from silly sentimentalism and bluster, but is of a healthy tone on all subjects, always moderate in language, but always mildly advocating the right. We find it one of the most generally attractive papers in our exchange.—*Saturday Visitor, Pittsburgh, Pa.*

We have heretofore spoken in high terms of the merits of the Post, as one of the best papers on our exchange list, and we regard it as one of the best literary papers to be found anywhere. Its editorials are written with ability, and take a liberal, independent, and comprehensive view of men and things.—*Star and Adv., Wrightsville, Pa.*

It is a paper of the largest size, and is edited with ability. It is highly spoken of by its readers, some of whom have clung to it for the last quarter of a century. It is too well and favorably known to need lengthy commendation. It tells its own story each week, and if you send for it once, you will be very sure to do so again.—*Valley Times, Cedar Rapids, Iowa.*

It is deservedly one of the most popular public journals in the United States, combining as it does, in a literary point of view, all the interest of the best magazines, with a vast amount of general intelligence.—*Republican, Litchfield, Ct.*

It is emphatically one of the very best literary newspapers in the whole country and deserves the unparalleled success with which it has met under its present enlightened and liberal proprietorship. The greater its circulation in this state, the less, probably, is our gain pecuniarily; yet we must pronounce it a most excellent journal, and worthy of the patronage of everybody. The contributors to the Post are among the finest writers in America, and the editor's articles are always characterized by truth and taste.—*Jersey Blue, Camden, N. J.*

We regard it as the best of the Philadelphia literary papers. Its editorials are written with ability, and take a comprehensive view of whatever is discussed.—*Echo, Johnstown, Pa.*

The long period during which this sterling paper has been established, and its recent immense circulation, (being between 80,000 and 90,000,) are ample guarantees to all who desire an excellent paper, that they will get the worth of their money by subscribing for the Post.—*Clarion, Lockhart, Texas.*

This is one of the best family papers upon our exchange list. Its original and well selected matter is of the first order.—*North-Western Democrat, Minneapolis, Min. Ter.*

The editorial department is conducted with ability and skill, and the news department, for a weekly paper, is exceedingly full and complete. All things considered, the Post is not excelled, for family reading, by any paper that we know of.—*Gazette, Fulton, N. Y.*

This is one of the oldest weekly papers in Philadelphia. It has lived on through all weathers—adversity has tossed it, and prosperity filled its sails—and yet it is the same staunch, strong barque.—*Spectator, Oquawka, Ill.*

We are in weekly receipt of this invaluable family journal, and should feel very much at a loss without it, as we consider it the *best* literary paper now published in the United States without any exceptions.—*Democrat, Cambridge, Md.*

☞ TO EDITORS.—Editors who give the above one insertion, or condense the material portions of it, (including our terms,) for their *editorial* columns, shall be *entitled* to an exchange, by sending us a marked copy of the paper containing advertisement or notice.

Dec. 1—w22,24m2t.

Contents of this Number.